

## II. Needs Assessment

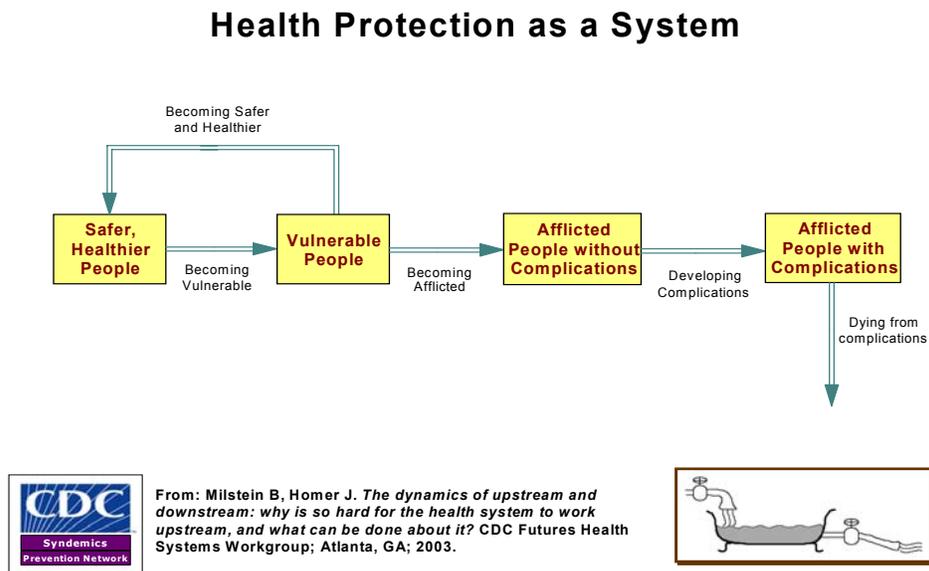
### A. The Needs Assessment Process

The needs assessment process was devoted to establishing the need in Arkansas for preventive and primary care services for pregnant women and infants, preventive and primary care for children, and services for children with special health care needs. During this discussion the health agency will be referred to as either the Arkansas Department of Health (ADH) in its old organizational status or the Division of Health (DOH) in its new organizational placement in the new Department of Health and Human Services. The former Department of Human Services (DHS) will be referred to as such.

MCH leaders conducting this needs assessment included staff from DHS and from ADH. Staff from DHS included the CSHCN Program Administrator and the Parent Consultant. Staff from ADH included Family Health Medical Leader, the Family Health Administrative Leader, the MCH Block Grant Manager, and the Family Health Leadership Team including Work Unit Directors for Women’s Health, Child and Adolescent Health, Oral Health and WIC. Referred to as the “MCH Planning Team,” this group participated in planning the approach to the needs assessment, helped staff the Stakeholders meetings, and conducted the details of the remainder of the needs assessment process as described below.

During this phase, the MCH Planning Team promoted two conceptual models. The first conceptual scheme was developed by Bobby Millstein at the Centers for Disease Control and Prevention (CDC) called “Health Protection as a System,” presented in Figure 1.<sup>1</sup> More details appear in Appendix A.

**Figure 1. Health Protection as a System**

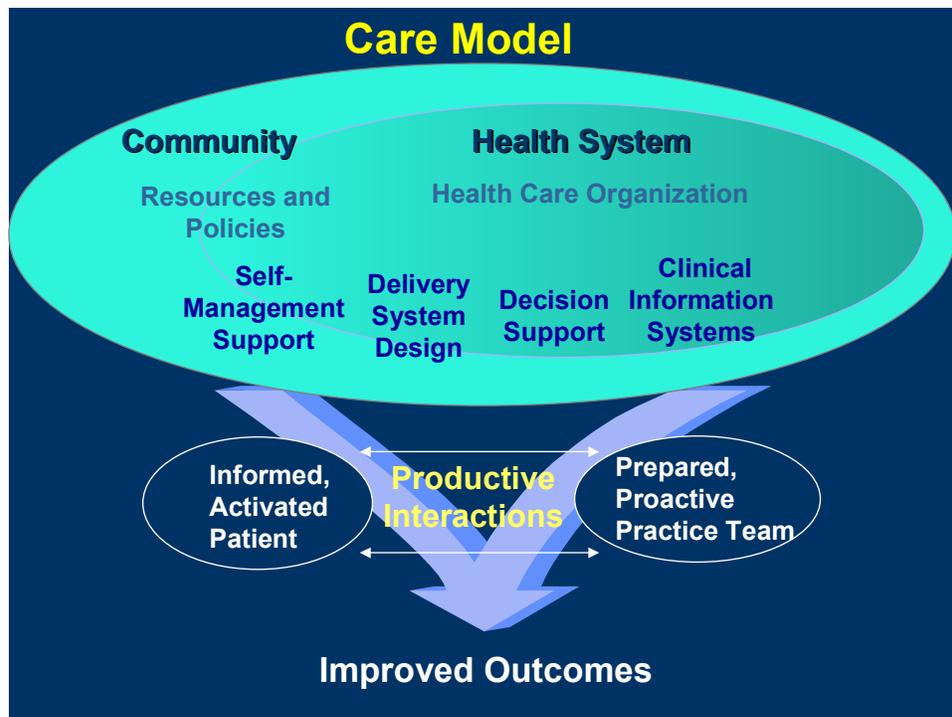


1. Milstein, B, *Introduction to the Syndemics Prevention Network*, CDC, Jan 2002

This model illustrates two key emphases. First, the population in a community experiences several states of health, beginning with safe, healthy people, among whom some are vulnerable, whose vulnerabilities progress on to afflictions (illnesses and social disadvantages) that then become complicated and threaten death. Second, this theoretical chain of events is compared to a flow of water in a system where safe and healthy people are portrayed as existing “upstream” and people afflicted and threatened with death are portrayed as “downstream.” The concept is that by intervening “upstream” society can affect all downstream events, illustrating the power of prevention.

The MCH Planning Team also promoted a second conceptual scheme called the “Chronic Care Model” discussed by EH Wagner and the American College of Physicians, and now adopted by the Community Health Centers as the “Care Model,” presented in Figure 2.<sup>2</sup>

Figure 2. The Care Model



<sup>2</sup> Bodenheimer T *et al*, Improving Primary Care for patients with chronic illness, JAMA, 2002 October 16; 288 (15): 1909-14 (Image obtained from Arkansas Primary Care Association)

This model illustrates the relationship between the community and the health system. It emphasizes the development of informed activated patients being served in a prepared pro-active practice team in the Community Health Centers.

Both models begin with people in the community, and therefore represent population-based approaches. If community services such as local health units see low-income patients who exhibit vulnerabilities (e.g. obesity, partner violence, abuse, substance abuse, depression) and they inform and activate those patients to seek primary care and case management services for these conditions, then the patients can be moved from the

vulnerable population back to the safe, healthy population, implementing “upstream” prevention. These models also promote the concept that changes in the community social and physical environment can have favorable impacts on health at the level of reducing vulnerabilities (e.g. recreational areas for physical activity to help prevent and reduce obesity and heart disease).

With respect to chronic diseases, especially diabetes, Frank Vinicor, MD, MPH, Director of the CDC Diabetes Program approaches this chronic disease from a life stages framework.<sup>3</sup> This notion is applicable to other chronic diseases. If one regards the adolescent years for girls and the reproductive years for young women as precursors to the “middle years” life stage described by Dr. Vinicor, prevention efforts earlier in life can clearly relate to women’s health chronic disease issues in the later stage.

3. Vinicor, F, *Diabetes and Women’s Health Across the Life Stages, a Public Health Perspective*, CDC, Oct 2001

Advancing these ideas, the MCH Planning Team convened the Stakeholders’ Group. The composition of the Stakeholders’ Group included leaders representing communities in each ADH Region of the state, ADH Regional Team Leaders, Medical Leaders from UAMS Colleges of Medicine and Public Health, Senior Leaders of the ADH, and Senior Leaders of the Dept. of Human Services Divisions most relevant to systems of health care for women and children (Developmental Disabilities and County Operations). Their names, organizations and roles are listed in Appendix B. Guided by Dr. Paul Halverson, Chair of the Department of Health Policy and Management, COPH, the Stakeholders articulated and prioritized health status and health systems issues for women and children, and made recommendations to convene partnerships to plan for improving the health of Pregnant Women and Infants, Children’s Health Services and Systems, Children with Special Health Care Needs, and Women. These priorities and recommendations are presented in Tables 1 and 2 in Section II B of this application.

The needs assessment process proceeded from this point back to the guidance of the MCH Planning Team as summarized in the following stages.

### **1. Assess Needs**

This stage proceeded in two phases, the *data review*, and the *stakeholders’* group discussion. In the first or *data review* phase, the MCH Epidemiologist, Li Zheng, reviewed many selected health status and systems measures for Arkansas, presented in Attachment C and summarized in section II B. Ms. Zheng reviewed all measures reported in the Block Grant application. They appear in Attachment D. A summary of those measures and their trends appears below in Figure 3.

**Figure 3. Performance measures review summary**

<b>Trends for Maternal and Child Health Indicators</b>					
	<b>NPM (18)</b>	<b>SPM (9)</b>	<b>NOM (6)</b>	<b>HSI (12)</b>	<b>HSCI (6)</b>
<b>Improving</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>2</b>
<b>No Change / Trend Unclear</b>	<b>8</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>2</b>
<b>Worse</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>2</b>

As part of the needs assessment, the MCH Planning Team assessed first those Block Grant Measures showing worsening trends in the above review slide.

The second phase of the assess needs stage, the *stakeholders phase*, consisted of the convening of the Stakeholders’ Group as introduced above. This phase was conducted in two meetings, one in January, and one in March. During the development of the Stakeholders’ discussion, several useful techniques for efficient development of priorities and recommendations were used. First, all members of the assembled group introduced themselves, and at Dr. Halverson’s request, described their own personal interests and “passions” in improving the health of women and children. All areas of interest were listed on newsprint, and were saved for future consideration. Second, Drs. Halverson and Nugent introduced the conceptual models described above, providing a broad context for the group’s discussions. Third, Ms. Zheng presented a summary of the health status and health systems data she reviewed. Fourth, Dr. Halverson identified ground rules for the day’s discussions, emphasizing that every individual’s input was important. Those present chose for themselves one of four stakeholders subgroups by the MCH subpopulations – Pregnancy and Infant Health, Children’s Services and Systems, Children and Youth with Special Health Care Needs, and Women’s Health. Each subgroup listed health status and systems issues all of which were captured on newsprint. Each group reported their issues to the reconvened plenary group. Dr. Halverson and Dr. Nugent led the group to combine duplicate and to identify cross cutting issues. By this process, the Stakeholders’ Group developed a combined list of health status and health system issues for prioritization. Dr. Halverson completed the prioritizing process using an electronic voting system that allowed each participant to assign a score of 1-7 to each item on the list, by two standards – items that were most important health issues, and

items that they as individuals were willing to do something about (take action). The result of this process appears in Table 1 below. Meeting minutes appear in Appendix E.

**Table 1. Stakeholders' Issues and Priorities**

- 1. Obesity, nutrition, physical activity**
- 2. Access to care, especially for prenatal care, routine child care, and CYSHCN**
- 3. Smoking and tobacco use**
- 4. Chronic diseases, especially obesity, diabetes, hypertension, cancer, heart disease**
- 5. Needs for health education and behavior change, especially public awareness and marketing, sexuality and early prenatal care**
- 6. Communicable diseases, especially HIV, STD, Immunization preventable diseases**
- 7. Need to address health system complexity through care coordination and family-centered approaches such as medical home**
- 8. Need to improve child health screening programs and care coordination, especially EPSDT, Newborn screening, AR Kids as a way to support screening and prevention**
- 9. Mental health, suicide, depression, chronic stress**
- 10. Application of distance communications technology – telemedicine, distance learning, knowledge management, consultation, referrals**
- 11. Oral health, for all children, but especially for pregnant women and CYSHCN**
- 12. Domestic violence**
- 13. Unintentional and injury prevention**
- 14. Substance abuse including alcohol**

Subsequent to the January 14 Stakeholders' meeting, the MCH Planning Team took each of the 14 priorities, listed under it the relevant Block Grant measures, and presented the trends for these measures in writing to the stakeholders. The intention was, at the next and final meeting of the Stakeholders, to inform them of Arkansas's progress in their areas of interest. The Stakeholders met on March 25, 2005 to generate recommendations for partnerships to be formed to continue development for women and children in Arkansas. Dr. Halverson and Dr. Nugent again facilitated this discussion, putting the participants back in their previous subgroups to develop recommendations for partnerships. They asked each group to define a broad statement of purpose, list specific health problems needing attention, make recommendations for improvements in services, suggest planning partners and define measures of success. Stakeholders made recommendations for the formation of four partnerships whose titles appear in Table 2. Their recommendations appear in Appendix F.

**Table 2. Stakeholders' recommendations for partnerships**

- 1. Pregnancy and Infant Health**
- 2. Child Health Services and Systems**
- 3. Children and Youth with Special Health Care Needs**
- 4. Women's Health**

## **2. Examining Capacity**

MCH staff, including staff from both ADH and CSHCN, conducted the capacity examination. The MCH Block Grant Manager of ADH, with the Medical Leader and the Director of the Family Health Services Unit, coordinated the capacity examination by obtaining input from program leaders in DHS for services to Children with Special Health Needs, and in ADH through discussions with the Family Health Leadership Team. In addition members of the Team held consultations with leaders of the Statewide Services Business Unit and other senior staff leaders, especially those guiding the Hometown Health Improvement efforts and the Healthy Arkansas initiative. These discussions involved sharing input of the results of the stakeholder phase, identifying strengths and concerns among existing activities, and planning new activities. The identification of Strengths was important to recognize Agency Capacity for Section III, B.

## **3. Select Priorities**

The MCH Planning Team collected from Work Units staff their input for continuing and new priorities to be addressed in the new five-year cycle. The Team decided that the MCH effort should take several program development paths. The first path continued the priorities required by the national performance measures, following many of the same actions pursued in the past, but including some new activities as recommended by the Stakeholders. For example, for pregnancy and infant health, the Maternity Program would pursue future use of the screening tools being generated by ANGELS. The Family Planning Program would pursue measuring body mass index (BMI) among its clinic patients, providing written nutritional guidance and referral to sources of nutritional education and support as needed. The second path adopted a new priority to address the Stakeholders' recommendations around identifying obesity in the Women's Health clinics in local health units and providing nutrition education material and referral to community sources of support for case management and nutritional and health support. The third path planned for providing the staff time for administrative support for the four new partnerships envisioned by the Stakeholders. The resulting state priorities are listed in section IV B.

## **4. Set Targets**

The MCH Planning Team members, aware of the Stakeholders' priorities and recommendations, worked with their Work Unit teams. They addressed national performance measures, existing state performance measures, and a new state performance measure related to identification of obesity among clinic patients. They set targets for the national and state performance measures. Those targets appear in the appropriate places on the application forms. The staff attempted to set target levels that were ambitious but not unrealistic.

## **5. Identify Activities**

MCH staff conducted this phase and selected activities to be carried out in MCH programs for the coming grant cycle. They identified activities that could be

accommodated in several aspects of the ADH. Staff identified activities requiring direct and enabling services that could be accommodated in Local Health Unit clinics and those requiring population-based efforts and infrastructure building that could be accommodated by central and regional office staff.

## **6. Allocate Resources**

Allocation of resources occurred as a distribution of *funds* and *personnel*.

First, the required 30 percent of funds for CSHCN was allocated to the Department of Human Services. Within ADH the remaining 70% of funds is allocated primarily to positions and personnel costs, and secondarily to contracts for specific services. After August 13, 2005, the Department of Health will merge with the Department of Human Services, forming a new Department of Health and Human Services, and being renamed the Division of Health. Financial management will be merged in the process. Organizers of the financial management offices of the new Department of Health and Human Services are now working out assignments for individual budget officers acting as contacts for specific program interests.

## **7. Monitor Progress**

The monitoring process of the Division of Health (DOH) regarding MCH programs will continue to be a function of both Family Health Services and Work Unit overview of the data being gathered and the work being done in the regions. The essential mechanisms for work activity monitoring in DOH regions is through the Franchise Agreements and supporting data systems including personnel rosters documenting role assignments in the regions, time studies documenting time spent in specific program activities, encounter form reporting of provided patient services, and Hometown Health Improvement reports of community-based activities. The Regional Teams as well as statewide programs have the responsibility to monitor all this information on a monthly basis. Regional Leadership Teams and those for Statewide Services review reports from all these administrative data systems. The DOH is now implementing a “random moment,” Intranet-based time survey system to more accurately reflect the time spent by employees providing services in the various health programs.

## **B. The Five Year Needs Assessment**

### **1. Process for Conducting the Needs Assessment**

Overall, the MCH Planning staff designed a needs assessment methodology, outlined in Section A above, to insure input from as many types as possible of people active in health care provision. Feeling included is important to sustained activities. Since efforts to improve health must be conducted in communities, regional management offices, state program offices, academic centers and clinics, the Planning Team included them in problem identification and early activities generating recommendations for action. In addition to starting with this broad-based group, the process provided for implementation of some of these suggestions in state agency activities for the medium term, and for the development and maintenance of new partnerships to enhance broad collaboration among those serving women and children. Also, by involving state agency staff at several levels in the process, the plans could be incorporated in the ongoing work they do. Staff also translated the priorities and suggestions from the Stakeholders into activities that fit immediately within ongoing work in the clinic and program office settings, assuring realism to the proposed efforts. That same staff articulated the priorities, activities, targets and measures expressed in this application. The MCH Epidemiologist reviewed performance, health status and health systems capacity measures for their trends over the last 5 years, shared them with all parties to the needs assessment process. She highlighted those that show unfavorable trends in the discussion with all MCH program staff to assure continuing commitment to reversing those trends. Funding resources are first allocated between ADH and DHS, earmarking 30% of the Block Grant total to DHS for services for Children with Special Health Care Needs as required by the grant. AHD uses the large majority of these funds to pay personnel costs to staff these programs and services. So the remainder of the allocation process is the assignment of staff time to conduct the activities. This allocation process is conducted in both program offices of the Work Units, and in the overall allocation processes of the current Departments of Health and Human Services. In the Department of Health, Franchise Agreements comprise the administrative mechanisms by which both direct, enabling, population based and infrastructure activities are maintained, monitored, evaluated, and modified as needed. The Franchise Agreement monitoring process is continuous, with annual major reassessments. The ADH leadership is working to better include Hometown Health Improvement activities (a major infrastructural support to community based health efforts) into the Franchise Agreement mechanism. MCH staff obtaining the performance and other measurements on an annual basis during the five-year cycle can express those trends to the leaders of the Statewide Services Business Unit and through them have influence on the Senior Staff of the Agency. ADH Regions continue to assign public health nurse leaders as MCH Specialists through whom communications with the counties can be maintained around MCH Block Grant measures.

Formal and informal collaboration processes occur continuously between public and private sectors, and between state and local levels of program activities. At the clinic level, nurse practitioners and public health nurses have a rich network of referral patterns to local physicians and hospitals for medically needed services. Local physicians in each county serve as County Health Officers. Interaction between local health units and local DHS County Offices are enhanced by the development of Hometown Health Coalitions,

and by Medicaid Program efforts to recruit newly eligible children and pregnant women to expanded reimbursement programs including the Family Planning Waiver, the AR Kids A and B (including SCHIP) program and the unborn child provision covering prenatal care for undocumented pregnant women. In the future, as ADH and DHS combine to form the new Department of Health and Human Services, these collaborative efforts will advance. Meanwhile, the ADH and the new College of Public Health at UAMS have followed a path of integrated development since the allocation of Tobacco Settlement Funds to support the creation of the COPH. Both UAMS and ADH contributed significant additional funding to initiate the teaching programs of the college. That the Stakeholders' Group included many representatives of both the College of Medicine and the College of Public Health, and that Dr. Paul Halverson guided its deliberations, is strong evidence of that growing partnership. The recommendations of the Stakeholders' Group clearly recognize the value of sustaining and enhancing these collaborative relationships in the four new partnerships.

The MCH Epidemiologist, Ms. Li Zheng, provided quantitative assessments for the MCH populations as depicted in Appendix C. A narrative analysis follows:

*Demographic and economic* trends in Arkansas showed steady increases in total population from 2.35 million for the 1990 census to 2.73 million for the 2003 inter-censal estimate, and project to 3.10 million in 2010. The trend for children was also slightly up, but the trend for childbearing women was down slightly. While Whites made up 81.8% of the total population, White children were only 76.4% and White women of childbearing age were only 78.7% of their subpopulations. Blacks made up 16.4% of the total population, while Black children made up 21.7% and Black women of childbearing age made up 19.0% of their subpopulations. Thus more socio-demographically vulnerable populations had higher numbers of young women and children. The proportion of total population in poverty in Arkansas increased steadily to 18.8% in the 2001-2002 timeframe, and leveled off in 2002-2003. The national poverty percentage in 2002-2003 was 12.3, also showing an upward trend. Children in poverty in Arkansas reached 31.2% in 2002, but declined to 26.8 in 2003. That compares to 17.6% in the US for 2003. Thus the population of children in poverty in Arkansas was proportionately high and had increased until recently. Children under 200% of poverty without health insurance increased from 48.6% in 1998-2000 to 52.7% in 2000-2002 and then declined slightly to 51.6 in 2001-2003. These rates were also high compared to the US, and the decline to 51.6% in 2003 probably reflected the early expansions of insurance coverage through AR Kids First and SCHIP.

For *perinatal health*, births in Arkansas increased from 37,010 in 2001 to 37,761 in 2003. Non-Hispanic Black births declined by 3.5% in that period while Hispanic births rose by nearly 8% to 3,281 in 2003. Birth rates by age group since 1990 have trended downwards for mother of ages 15-19, 20-24, and the total population of mothers, while birth rates for mothers 25-29 and all older groups have increased. The fertility rate for Hispanic mothers in 2003 stood at 147.7 per thousand compared to less than 67.7 per thousand for all other subgroups, and compared to 96.6 for US Hispanic births. These data underscore the growing need to serve Hispanic pregnant women and infants in this state. The low birth weight rate in Arkansas was 8.9%, continuing an increase in the past few years, and comparing to 7.9% for the US that is also showing an upward trend. The 2010 objective

is 5.0 underscoring the importance of finding ways to combat low birth weight and preterm birth. Infant mortality, owing to the increase in low weight birth, increased to 8.6 per 1000 births in 2002, compared to a US rate of 7.0. The 2010 objective for the US is 4.5. For infants, 98.2% of all newborns received screening for metabolic, thyroid, and hemoglobin abnormalities while 97.5% were screened for hearing before hospital discharge. These rates compared favorably to national rates. Breastfeeding at hospital discharge from 1999 to 2002 was infrequent in Arkansas with a flat trend around 60%. Pregnancy Risk Assessment (PRAMS) data indicated that mothers saying they put their babies on their backs to sleep increased to 77% in 2000. That was up from 71% in 1997. This trend is associated with an observed decline in infant deaths due to Sudden Infant Death Syndrome in both Arkansas and the nation. Unintended pregnancy rates, according to the PRAMS survey in 2001 occurred in 52% of births, with 38% being mistimed and 14% being unwanted. The trends for unintended pregnancy rates have been flat in Arkansas since 1997. PRAMS data show an upward trend for HIV counseling of pregnant women, increasing from 69% to 78% in 2000. More recent data are not available through Arkansas PRAMS. Alcohol consumption rates, probably under-reported nationally and in the state, were very low for Arkansas women in 2000. However, 16.7% of pregnant women, according to Arkansas birth certificates, used tobacco in 2003, down from 19.6% in 1998. While about a third of pregnant smokers gave up cigarettes during the pregnancy, half of them returned to smoking after the birth. The age distribution for abortions paralleled that for live births in the state, and Black women appeared to resort to abortion with higher frequency than White women. Regarding health system capacity, Medicaid women, compared to non-Medicaid women, had higher rates of low weight birth and infant mortality, and lower rates of first trimester prenatal care. Additionally, Medicaid women had lower rates of prenatal care judged adequate by the Kotelchuck Index than their non-Medicaid counterparts. Regarding data capacity for pregnancy and infant health, all required data systems and linkages are available through the Arkansas State Center for Health Statistics, except regular linkage of Medicaid records to birth certificates. Because Arkansas Medicaid is funding the UAMS OBGYN Department to evaluate the ANGELS Project, ADH (now the Division of Health) has developed a memorandum of understanding with Medicaid and UAMS to provide linked files to the evaluation. UAMS, the ANGELS contracted evaluators, Medicaid and the State Center for Health Statistics are now implementing this evaluation. The first attempt at linking a pilot file yielded a 91% match rate between Medicaid women identified as having an “episode” of pregnancy, and the birth certificates. The external evaluators contracted by Medicaid and UAMS are preparing the first file of baseline cases that will incorporate two annual Medicaid birth cohorts into the linking process. When this is accomplished, the three organizations will have accurate data updated every quarter with which to follow major trends in perinatal care among low-income pregnant women in Arkansas.

*For child and adolescent health*, the estimated vaccination coverage for children under age two was 69% in 2003, which has increased to 79.5% in 2004 according to the National Immunization survey, a gratifying increase. While data on potentially eligible children who enrolled in AR Kids First are available, the MCH staff have had some difficulty obtaining consistent and reliable estimates on these figures. The same has been true for enrolled children receiving a service. The service rates tend to be low because many AR Kids-enrolled children see their primary care physician and have checkups, but

the visits may not be billed as an EPSDT screen. Medical record reviews are necessary to clarify this rate. The last medical records survey was done in 2003 when 88% of enrolled children had a visit. Fifteen (15) percent of third graders had protective sealants on at least one molar in 2003. This data point was obtained from statewide examinations of third graders in a representative sample of school including about 7000 children. The number of children examined was up dramatically from a range of around 300 in the previous survey establishing a much more reliable rate of sealant use than had been obtained before. This explains the apparent and probably misleading decline in sealant use rate from 28% in the previous survey. Eleven (11) percent of WIC children were overweight, while 22% of public school students were overweight and 18% were at risk for overweight. These data were obtained from measurement of body mass index (BMI) conducted in all Arkansas schools in 2004. For adolescents in 2003, 5,684 babies were born to teen mothers of whom 4233 (74%) were unmarried. Among children 1-14, 139 died for a mortality rate of 26 per 100,000 in this age group. Congenital anomalies, preterm birth, pregnancy complications and SIDS cause infant deaths in that order. For older children 1-14, unintentional injuries (mostly motor vehicle crashes) clearly dominate in causes of death. Eleven (11) children 15-19 years committed suicide in 2003 for a rate of 5.6 per 100,000. Teenage childbearing trends are steadily and significantly down since 1990. The percent of Arkansas high school students who ever had intercourse was 55.5 in 2001, continuing a steady decline from 61.5% in 1995, according to the Youth Risk Behavior Survey (YRBS). Teen tobacco use in YRBS data is higher in Arkansas than the US, but showed steady declines between 1997 and 2001, as did the US rates. Alcohol consumption has remained steady in Arkansas and compares favorably with US rates. Substance abuse rates in Arkansas and the US in 2001 were remarkably similar for marijuana, cocaine and inhalants. Regarding physical activity, YRBS studies show that 34% of Arkansas children had insufficient vigorous physical activity, 64% were not enrolled in physical education (PE) classes, and 11% had no physical activity. These rates are all higher than the US rates. Not being enrolled in PE classes was strikingly higher in Arkansas than the US rate of 48%. Other risk behaviors among youth included rarely or never wearing seatbelts (23%) carrying a weapon (22.1%) and attempted suicide (8.8%). While the rate of attempted suicide in Arkansas was the same as for the US, not wearing seatbelts and carrying a weapon were much higher than the same US rates.

*Regarding children and youth with special health care needs*, the 2001 CSHCN survey indicated that 14.7 % of children 0-17 had special needs compared to a national rate of 13%. Non-Hispanic Whites (14.7% with special needs) and Non-Hispanic Blacks (13.7% with special needs) compared unfavorably to Hispanic children (7.0% with special needs), however, under-reporting seems likely. An estimated 52% of Arkansas children with special needs received care in a medical home, compared to 53% nationwide. Twenty three (23) percent of CSHCN in Arkansas have some unmet need for health care services compared to a national rate of 18%.

*For women's health* as documented in the Behavioral Risk Factor Survey (BRFSS) several data points are of interest. In Arkansas in 2002, 17% of women who still had a uterine cervix reported not having a Pap smear in the last three years. That was down from 21.8% in 1997. Also in 2002 20.9% of women reported never having a clinical breast exam or mammogram. This was down from 32% in 1997. Reported cases of

Chlamydia among women 15-19 increased from 23 per 1000 to 27 per 1000 between 1999 and 2003. Chlamydia positivity rates among women over 19 were down to 3 per 1000 in 2003, but rose to 7.2% in 2004. In Arkansas 5,278 induced abortions were performed in 2003.

The *strengths of the current needs assessment methodology* lie in the broad base of external stakeholders involved, the excellent data available for review, the strong support of the ADH and DHS to conduct this needs assessment process, the high level of interest expressed by our external stakeholders who attended those meetings, and the dedication of existing ADH and DHS MCH staff. Additionally, the current burgeoning atmosphere of collaboration developing between ADH, Medicaid, UAMS and other state agencies has improved effectiveness of this process. The ADH and its sister organizations have captured additional grant funds through several other projects that have added greatly to this effort. These include for ADH, the Community-Based Integrated Service Systems, the State Systems Development Initiative, and the Arkansas Early Childhood Education Comprehensive Systems grants. In recent years, Arkansas MCH services have benefited from the Medical Home grant awarded by the MCH Bureau to the Pediatric Department at UAMS, and the Preventive Health Services Block Grant awarded by CDC to the ADH including support for Injury prevention, Fire and Burn Prevention, and Child Safety Seat promotion. Previous federal grants that have aided collaboration for children include Healthy Childcare America from MCHB, and the Comprehensive Adolescent Health grant from CDC. *The weaknesses* of this process stem from the fact that prior to the current reorganization, integration of Information Technology (IT) systems between Health and Human services for anything but Medicaid billing was non-existent. Major new efforts including the Vaccine Registry and the ANGELS evaluation have occurred, and the two former Departments of Health and Human Services are in the process of integrating their IT systems to achieve the efficiencies of a new consolidated organization. Communication pathways for input from Community Leaders, though rapidly increasing with Hometown Health Improvement Initiative efforts, are still pretty strictly limited, as community leaders in small towns who are active in one community effort are likely to be the same ones who participate in all their community's efforts. For this reason the MCH Planning Team limited the Stakeholders' conversation to two meetings.

## **2. Needs Assessment Partnership Building and Collaboration**

Partnership between MCH Programs was developed through the MCH Planning Team. Ms. Carladder Parham, Director of the Family Health Service Unit coordinated the Planning Team. CSHCN, Family Planning, Child and Adolescent Health, Women's Health and Oral Health leaders all participated on the Planning Team. The Women's Health Work Unit directed by Mr. Bradley Planey administers the Unwed Birth Prevention Program that addresses adolescents from a Family Planning perspective. The Child and Adolescent Health Work Unit, led by Shaun Addison, administers the Abstinence Education Program that addresses mainly adolescents from the abstinence-only perspective. Both programs provide funding through a request for proposal system and make grants to lead agencies in located in communities in the state selected by the competitive proposal system. Dr. Lynn Mouden, a public health dentist, directs the Office of Oral Health, attending to fluoridation of public water supplies, surveying third graders

for sealants and tooth decay, and providing critical infrastructure leadership and education through the Governor's Summit on Oral Health . Mr. Marcell Jones directs the WIC Work Unit and services of the WIC Program, including WIC clinics in all local health units, food instrument issuance, management of WIC Farmer's Markets, and the reimbursement program for participating food stores.

While there is no Maternal and Infant Health program *per se* in Arkansas, the ADH provides \$400,000 yearly to the UAMS Department of Obstetrics and Gynecology, chaired by Dr. Helen Kay, to support the high risk maternity clinics, led by Dr. Curtis Lowery and especially to provide a contact person for LHU referrals. The current contact person, Ms. Cindy Musgrove, is a nurse practitioner who formerly worked with ADH, and is very knowledgeable of our clinic system and of our Women's Health Nurse Practitioners. Healthy Start collaboration at the state level has been conducted mainly through conversations between the Title V Medical Director and the Project Director of the Mississippi County project. The main venue for collaborative work with Healthy Start is at the community level in Blytheville and West Memphis. The project works with public health nurses in our maternity and family planning clinics in Mississippi and Crittenden Counties. Collaboration with other HRSA-funded programs is developed locally. For example, Family Planning patients who experience chronic illnesses or need medical consultation, and live in a community served by one of our 51 Community Health Centers are referred there for care. We also work with primary care physicians around the provision of immunizations. At the state level, the Primary Care Association of Arkansas under the direction of Ms. Sip Mouden conducts a collaborative effort entitled Statewide Healthcare Access, Resources and Planning (SHARP). Dr. Mouden and Dr. Nugent have helped with committee leadership in the past two years. Many other staff people from ADH have been involved, especially from Community Health Centers and Chronic Disease Programs. The HIV/AIDS Program of ADH is administered in the Statewide Services Business Unit of ADH, next to the Family Health Services Unit. There is a rich network of connections between these two programs at both community and statewide levels. Public Health Nursing staff in all LHUs screen patients for sexually transmitted infections (STIs) and AIDS. For patients who are women, the network of 44 Women's Health Nurse Practitioners, maintained by Family Planning and Maternity programs provide consultation and treatment of women with STIs and backup for public health nurses in all 75 counties. Currently the Infectious Disease Service Unit, directed by Jerry Jones and medically guided by Dr. Nate Smith, and The Family Health Service Unit are collaborating to start a training program for selected public health nurses to develop and implement expanded protocols for those nurses. Regarding chronic disease prevention, the Statewide Services Unit also houses the Chronic Disease Service Unit, directed by Jan Bunch and led by Dr. Jennifer Dillaha. Chronic Disease programs have fewer links to local health units, but work primarily with public awareness efforts and community leaders.

### 3. Assessment of Needs of the Maternal and Child Health Population

#### Population Subgroup A, Pregnant women, and infants

Among states, Arkansas has a disproportionate share of communities with high levels of poverty, minority populations, rural isolation, and medically underserved communities.

**Table 3. Major mortality, morbidity and social needs, pregnant women and Infants in Arkansas, 2003 (Provisional data)**

Health Problem	White, non-Hispanic	Black, non-Hispanic	Hispanic	Total
<b>1. Mortality (/1000)</b>				
Infant	8.4	12.3	1.5	8.6
Neonatal	4.9	8.4	1.2	5.3
Post neonatal	3.5	4.0	0.3	3.3
Fetal	5.3	11.0	5.8	6.6
SIDS	0.5	0.7	0	0.5
<b>2. Morbidity (%)</b>				
Low birth weight	6.4	10.7	5.4	7.2
Very low birth weight	1.3	3.0	0.8	1.6
<b>3. Societal Issues (per 1000)</b>				
Teen birth rate	51.3	71.6	118.9	58.8
<b>4. Chronic/Preventable Illness in Pregnancy (%)</b>				
Diabetes	2.7	2.9	3.7	2.8
Hypertension	6.3	6.9	3.3	6.2

Source: Arkansas Center for Health Statistics, ADH

Table 3 depicts the major health issues for pregnant women and infants in Arkansas by demographic subgroups.

The Arkansas Department of Health has divided the state into five health Regions: Central, Northeast, Northwest, Southeast, and Southwest. Table 4 depicts the regional variations in infant mortality, low birth weight, and teen birth rate. The regions' relative levels of these measures reflect similar distributions of chronic and preventable diseases and many other health measures.

**Table 4. Infant death, low weight birth, and teen birth rates by Region, Arkansas 2003 (Provisional data).**

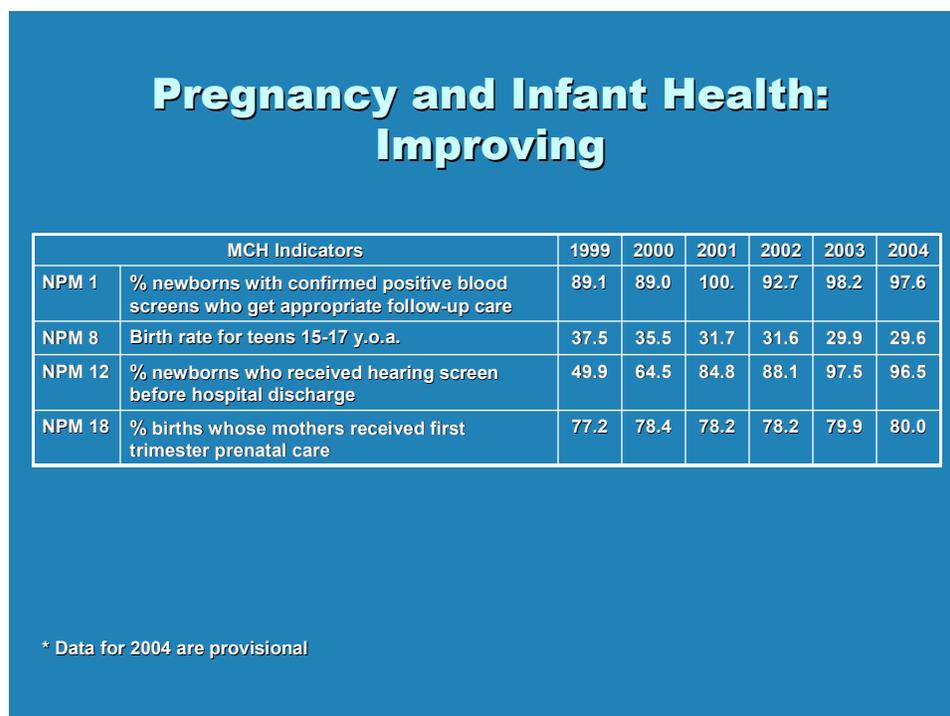
Region	Infant death rate (/1000)	Low birth weight rate (%)	Teen (15-19) birth rate (/1000)
Central	8.1	7.6	51.5
Northeast	10.6	8.3	63.3
Northwest	8.5	5.7	58.9
Southeast	9.3	8.7	67.9
Southwest	6.5	7.7	58.7
State	8.6	7.2	58.7

Source: Arkansas Center for Health Statistics

The Northeast and Southeast regions, lying in the Mississippi Delta, have the highest levels of poverty, minority families, rural isolation and medically underserved communities. The Central Region has the highest levels of low-income urban neighborhoods. The Northwest and Southwest Regions are impacted most heavily by high concentrations of immigrant families.

The Arkansas MCH Programs follow the eighteen (18) National Performance Measures, the 9 State Performance Measures, the 6 National Outcome Measures, the 12 Health Systems Indicators, and the 6 Health System Capacity Measures required by the Block Grant. Figures 4, 5 and 6 summarize the trends the state is experiencing for each of these types of measures for the Pregnancy and Infant subpopulation.

**Figure 4. Improving trends for pregnant women and infants**



**Figure 5. Trends that are flat or unclear for pregnant women and infants**

## Pregnancy and Infant Health: No Change/Trend Unclear

MCH Indicators		1999	2000	2001	2002	2003	2004
NPM 11	% mothers who breastfeed their infants at hospital discharge	60.3	60.2	59.7	61.1	61.1	61.1
NPM 17	% very low birth weight infants delivered at facilities for high risk deliveries and neonates	66.8	67.1	66.4	65.4	64.2	65.7
NOM 2	Ratio of black infant mortality rate to white infant mortality rate	1.8	2.0	2.1	1.9	1.8	1.9
NOM 4	Post-neonatal mortality rate per 1,000 live births	3.4	3.5	3.7	3.3	3.3	3.3
NOM 5	Peri-natal mortality rate per 1000 live births plus fetal deaths	9.6	9.6	10.0	10.5	9.7	9.8

## Pregnancy and Infant Health: No Change/Trend Unclear

MCH Indicators		1999	2000	2001	2002	2003	2004
HSI 2b	The percent of live singleton births weighing less than 1,500 grams.	1.4	1.4	1.4	1.4	1.3	1.5
HSCI 4	The percent of women (15 through 44) with a live birth during the reporting year whose observed to expected prenatal visits are greater than or equal to 80 percent on the Kotelchuck Index	77.0	80.5	80.7	80.7	80.5	79.8
SPM 24	% pregnant women counseled for HIV testing	69.0	78.0	70.0	70.8	69.1	69.1
SPM 32	% women smoking during pregnancy	15.8	18.6	19.5	20.4	20.3	20.3

The MCH Planning Team is pleased to see improvements depicted in Figure 4. The Team is also concerned about trends showing no improvement, especially when the data collections process could be improved. However, for purposes of this discussion, and with a focus on priority needs assessments, we focus on the trends showing that problems are getting worse.

**Figure 6. Trends that are getting worse for pregnant women and infants**

## Pregnancy and Infant Health: Worse

MCH Indicators		1999	2000	2001	2002	2003	2004
HSI 2A	Very low birth weight rate	1.7	1.6	1.7	1.7	1.6	1.9
HSI 1A	The percent of live births weighing less than 2,500 grams.	8.7	8.6	8.7	8.7	8.9	9.3
HSI 1B	The percent of live singleton births weighing less than 2,500 grams	7.2	7.2	7.1	7.2	7.3	7.5
NOM 1	Infant mortality rate per 1,000 live births	8.3	8.4	8.3	8.4	8.6	8.1
NOM 3	Neonatal mortality rate per 1,000 live births	4.9	4.9	4.6	5.0	5.4	4.8
NPM 15	% Very low weight births among all live births	1.7	1.6	1.7	1.7	1.6	1.9

\* Data for 2004 are provisional

Of particular concern is the worsening trend in low birth weight rate, since that statistic is so heavily related to infant and neonatal death rates. This trend has been noted nationally with particular emphasis on the national increase in extremely low weight births, less than 1000 grams. However, Arkansas's trend is showing worsening mainly in the birth weight group between 1500 and 2500 grams, and among singleton births. The reason for these trends is not apparent at this time, but still much can be done to combat these poor outcomes. Smoking, lack of prenatal care, and stressful life situations have all been shown to increase low birth weight and preterm birth rates. Infant mortality and neonatal mortality rates for Arkansas, surprisingly, do not yet show the increase to be expected from the rising low birth weight rates. In later pages of this application, Arkansas's MCH leaders will describe some new approaches to these problems, associated with a new program at UAMS called ANGELS, and ways the ADH clinic services can link to and strengthen that program.

The ADH MCH staff, as part of the capacity examination of this application, discussed the strengths of the Arkansas system of care for pregnant women and infants. Overall, the strengths of the public health system of prenatal care lie in the wide distribution of prenatal clinics in all regions of the state, served by two obstetricians, 44 Women's Health nurse practitioners, and many public health nurses and clerks. The strength of the private health care system of prenatal and infant care lies in its large capacity to serve all pregnant women and infants if they all had a source of insurance coverage. The estimate of private resources is presented in Appendix G. The weakness of this assessment lies in the fact that, though overall capacity in the private sector appears adequate, not all practices accept Medicaid patients, and not all counties have a sufficient number of providers to assure availability of care. For this reason, Arkansas maintains an extensive

network of prenatal clinics in the Health Department services, and the Community Health Centers network provides both prenatal and delivery services.

### **Population Subgroup B, Children**

Health problems and the system of health care in Arkansas suffer from many of the same cross cutting issues that exist for pregnant women and infants. Poverty, minority populations, rural isolation and medically underserved communities affect children’s health in the same way. Table 5 depicts the variation in childhood mortality experienced by children of various demographic subgroups in Arkansas.

**Table 5. Child death rates, CY 2003 for racial and ethnic subgroups in Arkansas (Provisional data)**

<b>Race/Ethnic Subgroup</b>	<b>Child (1-4) death rate (Per 10,000)</b>
<b>White, non-Hispanic</b>	4.2
<b>Black, non-Hispanic</b>	5.4
<b>Hispanic</b>	4.4
<b>Total</b>	4.5

Source: Arkansas Center for Health Statistics

Table 5 demonstrates that child death rates did not vary a lot by demographic subgroups for provisional data in 2003.

Table 6 depicts the regional variation in mortality rates per 1000 children ages 1 to 4.

**Table 6. Mortality rates, CY 2003, for children 1-4 by ADH Region (Provisional data)**

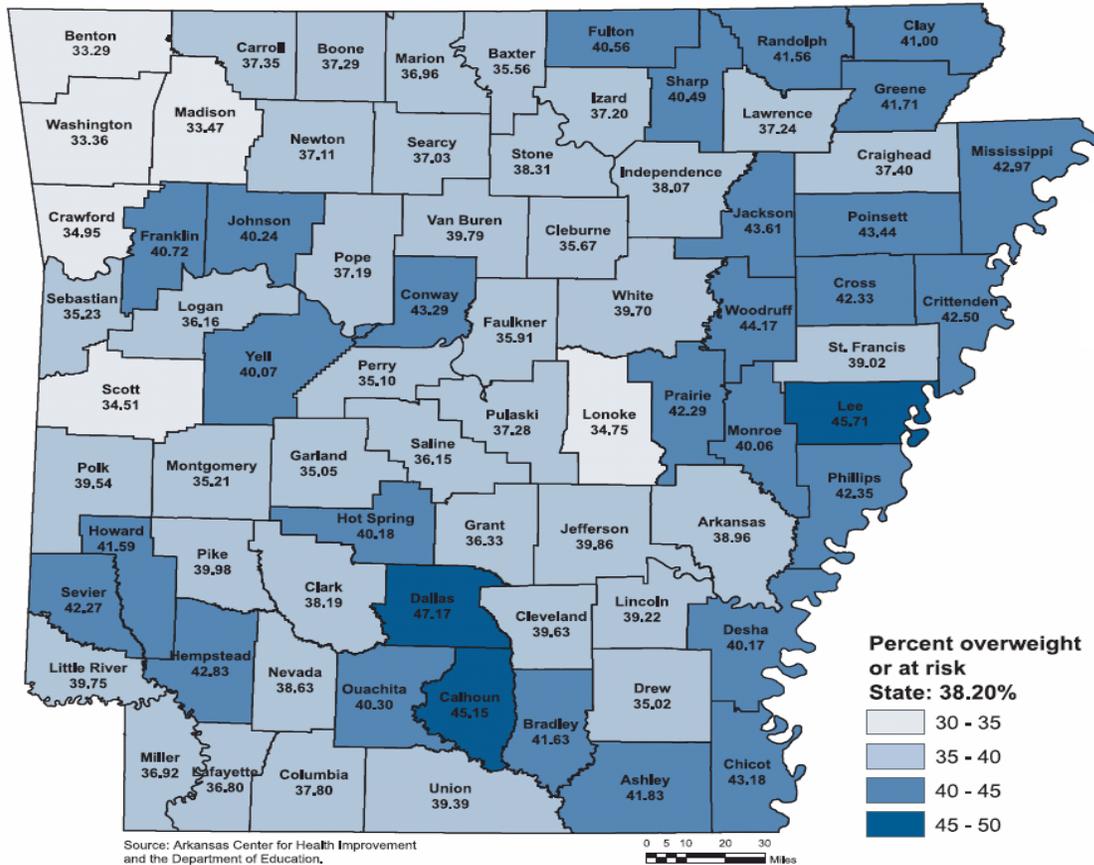
<b>Region</b>	<b>Child (1-4) death rates (Per 10,000)</b>
<b>Central</b>	3.1
<b>Northeast</b>	3.2
<b>Northwest</b>	6.3
<b>Southeast</b>	6.5
<b>Southwest</b>	3.5
<b>State</b>	4.5

Source: Arkansas Center for Health Statistics

Child death rates varied more by ADH Region with the Northeast and Southeast regions experiencing the highest rates. Agricultural communities with many children being raised on farms, and with high rates of injury and injury deaths due to farming accidents may explain this distribution.

Regarding overweight among school children, Figure 7 depicts the body mass index (BMI) measurements taken in school year 2003-2004. Measurement data for the 2004-2005 year are now being finalized for a report due out in the fall.

**Figure 7. Percentage of all students overweight and at risk for overweight**



The Arkansas Assessment of Childhood and Adolescent Obesity

Although *weight problems* in children rarely by themselves occasion visits to the family doctor or hospitalization, overweight and at risk for overweight status among school children represent emerging problems of great health significance. Nationally, and in Arkansas, pediatricians and other experts attest to the rising incidences of hypertension and type II diabetes among children. These same trends are reflected in Youth Risk Behavior studies nationally and in the state. Following passage of Act 1220 in the 2003 session of the Arkansas General Assembly, Arkansas began a statewide program to address overweight problems among school children. The act established a program to measure Body Mass Index (BMI) in all schoolchildren and created a Child Advisory Committee to develop recommendations to schools to improve the nutritional environment. Issues such as vending machines, vendor contracts, and cafeteria foods, as well as physical education classes and after-school activities have received attention in these recommendations. The Arkansas Center for Health Improvement is now cleaning and calculating the data for the 2004-2005 school year. Among 346,892 school children measured in schools during the 2003-2004 school year, overweight status occurred to

21% of students, and at risk for overweight status to 17% of those in grades pre-K through 12. These measurements represent baseline data to study the effects of a vigorous statewide effort to find these problems in children and to encourage referrals to community sources of counseling and other care.

Performance, Outcome, Health Status, and Health System Capacity measures regarding children reveal an important story on the health status of Children in Arkansas.

Figures 8, 9 and 10 depict the trends Arkansas is experiencing relative to the health of its children.

**Figure 8. Child health issues showing improvement**

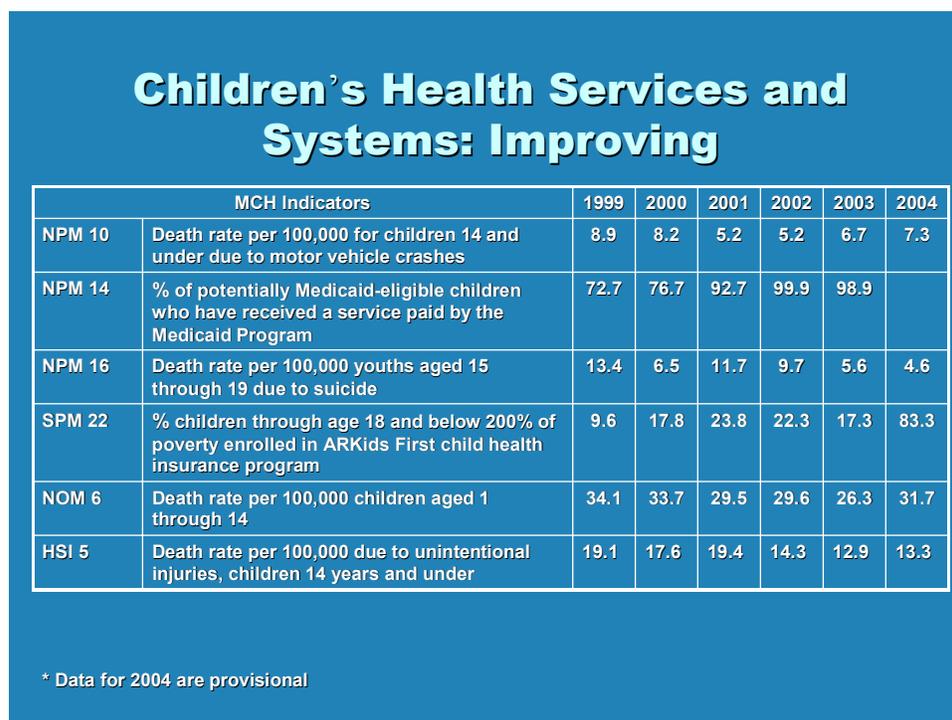


Figure 8 continues on the next page.

**Figure 8. Child health issues showing improvement (Continued)**

### Children's Health Services and Systems: Improving

MCH Indicators		1999	2000	2001	2002	2003	2004
HSI 6	Death rate per 100,000 due to unintentional injuries, children 14 years and under, caused by motor vehicle crashes	8.8	8.2	8.2	5.2	6.7	7.3
HSI 7	Death rate per 100,000 due to unintentional injuries, youth 15 through 24 years, caused by motor vehicle crashes	36.4	40.0	45.2	41.9	38.2	40.7
HSI 9	Non-fatal injury rate per 100,000 due to motor vehicle crashes, children aged 14 years and under		78.5	76.7	68.1	71.8	
HSCI 1	Asthma hospitalization rate per 10,000 children less than five years of age.	35.2	35.6	33.1	33.5	30.3	27.6
HSCI 2	% Medicaid enrollees whose age is less than one year who received at least one initial or periodic screening	79.0	74.6	82.4	98.6	95.9	
HSCI 7	% EPSDT eligible children aged 6 through 9 years who have received any dental services during the year.	48.4	30.1	35.5	38.0	39.4	

\* Data for 2004 are provisional

**Figure 9. Child health issues remaining the same or for which a trend is unclear from the data**

### Children's Health Services and Systems: No Change/Trend Unclear

MCH Indicators		1999	2000	2001	2002	2003	2004
SPM 21	% of Arkansas High School students engaging in sexual intercourse.	55.9		55.5		51.9	51.9
HSI 3C	Death rate per 100,000 for unintentional injuries for youth aged 15 through 24 years due to motor vehicle crashes	36.4	40.0	45.2	48.4	38.2	40.7
HSI 4C	Non fatal injury rate per 100,000 youth aged 15 through 24 due to motor vehicle crashes		151.2	152.5	150.9	150.8	150.8
SPM 30	% public school students overweight greater than 95th percentile					22.0	22.0
SPM 31	% at-risk for overweight children in Arkansas Public schools					17.7	17.7
NPM 14	% of potentially Medicaid-eligible children who have received a service paid by the Medicaid Program	72.7	76.7	92.7	99.9	88.9	79.5
NOM 6	Death rate per 100,000 children aged 1 through 14	34.1	33.7	29.5	29.4	26.4	31.7
HSCI 2	% Medicaid enrollees whose age is less than one year who received at least one initial or periodic screening	79.0	74.6	82.4	98.6	95.9	63.2

Figure 9 continues on the next page.

**Figure 9. Child health issues remaining the same or for which a trend is unclear from the data (Continued)**

MCH Indicators		1999	2000	2001	2002	2003	2004
SPM 21	% of Arkansas High School students engaging in sexual intercourse.	55.9		55.5		51.9	
HSI 7	Death rate per 100,000 for unintentional injuries for youth aged 15 through 24 years due to motor vehicle crashes	36.4	40.0	45.2	41.9	38.2	40.7
HSI 10	Non fatal injury rate per 100,000 youth aged 15 through 24 due to motor vehicle crashes		151.2	152.5	150.9	150.8	
SPM 30	% public school students overweight greater than 95th percentile					22.0	
SPM 31	% at-risk for overweight children in Arkansas Public schools					17.7	
HSCI 3	% of State Children's Health Insurance (SCHIP) enrollees , age under 1 yr during the reporting year, who received at least one periodic screen	70.0	79.5	86.2	96.0	60.5	

The MCH Planning Team notes the improvements in Figure 8. The Team is concerned about those trends that are not improving, especially where data collection is incomplete or could be improved. For purposes of this needs assessment, however, the Team focused on trends that were getting worse.

**Figure 10. Child health issues getting worse**

MCH Indicators		1999	2000	2001	2002	2003	2004
NPM 7	% of 19-35 month old who have received full schedule of age appropriate immunizations against MMR, DTP, Polio, Hib and Hep B	86.8	86.9	81.0	77.2	68.5	78.9
NPM 9	% third graders who have received protective sealants on at least one permanent molar tooth	21.8	17.3	24.0	24.4	14.9	15.0
NPM 13	% children without health insurance	11.8	11.6	13.0	13.0	13.0	7.4
HSI 4A	Rate per 100,000 of all non-fatal injuries among children aged 14 years and younger		320.6	320.5	327.8	331.4	331.4
HSCI 3	% of State Children's Health Insurance (SCHIP) enrollees, age under 1 yr during the reporting year, who received at least one periodic screen	70.0	79.5	86.2	96.0	60.5	55.6
SPM 27	% children receiving WIC services above the 95th percentile on the National Center for Health Statistics weight for height growth charts	8.0	8.6	8.8	10.2	10.8	10.8
NPM 10	Death rate per 100,000 for children 14 and under due to motor vehicle crashes	8.9	8.2	5.2	6.0	6.7	7.3

\* Data for 2004 are provisional

The age appropriate immunization trend dipped in 2001-2003, but has improved sharply in the last year. The Immunization Registry is now on line and is training health providers from all interested communities to enter the information from their practices on a real-time basis. As documentation improves, increases in the completeness of immunization will become apparent. In 2004, Arkansas's percent completion as measured by the National Immunization Survey increased markedly compared to the 2003 number. At 78.9 percent, the completion rate was not significantly different from the national rate. The protective sealant survey, this past year, extended to seven thousand school children, a dramatic increase over the 350, or so done the year before. This increase was achieved by the Oral Health Director who, with the aid of his staff, a special grant and many volunteer community dentists, was able to obtain a large and much more reliable sample. The results are disquieting. Children without health insurance remained a problem in 2003, despite the continuing increase in enrollment in AR Kids First, and a developing understanding by parents of the A and B program groups serving their children. AR Kids A is the Medicaid or EPSDT eligible subgroup with incomes of below 133% of poverty to age 6 and incomes below 100% poverty at later ages. AR Kids B is largely populated by children eligible for the State Child Insurance Program (SCHIP) funded by the Centers for Medicare and Medicaid Services. Approximately 85% of AR Kids B services occur to SCHIP eligible children. The remainder are state employees, or their parents were eligible for AR Kids A but chose to remain in AR kids B because of preference for its benefits package. It has been difficult, prior to this year, to understand the distinctions between the two parts of AR kids, of Medicaid, and of EPSDT, as required for performance measures in the Block Grant. These performance and other measures are still not well understood by either the MCH and CMS programs or by the statistical staff at DHS. As the ADH and DHS merge existing IT systems the opportunity for much more detailed collaboration on developing these data will exist.

## **Population Subgroup C, Children with Special Health Care Needs**

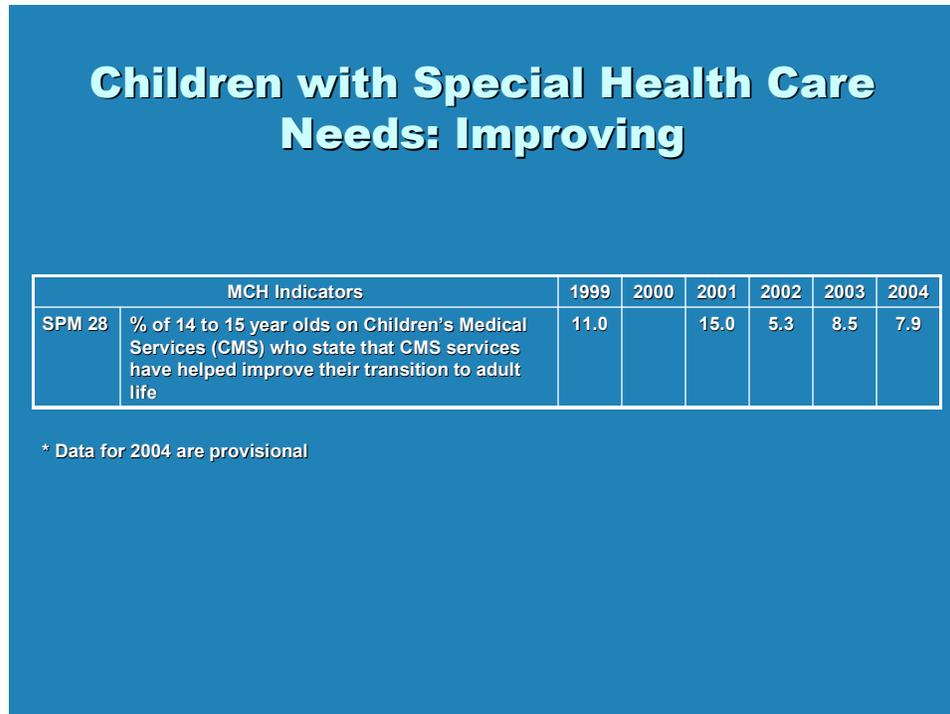
The national CSHCN survey, conducted by the State and Local Area Telephone Survey indicates that the estimated percent of Arkansas Children who have a special health care need was 14% in the latest available survey information.

The needs of CSHCN mirror several of those identified for the population. Needs identified by families of CSHCN include transition, where those services begin late in high school for the education component. Transition to adult medical providers is difficult for individuals with diagnoses such as Spina Bifida. There is no clinic setting where multiple specialties are available to provide follow-up in one visit as there is in the Pediatric population. The tertiary care center has made an effort to transition youth to adult providers at age 21, but in many instances has been unable to do so and continue to treat youth at their pediatric facility. Respite services are a tremendous need, as noted by families in the Needs Assessment process. Anecdotally, the need for respite in many instances has led to crises that threaten to break up families. The system currently in place does not meet the extensive needs around the state. There is anecdotal evidence of increasing numbers of children being diagnosed with Type I diabetes, suffering injuries in MVA (both auto and ATV) and with mental/behavioral health needs. For the dually diagnosed, the mental health system proves to be a tremendous challenge with limited numbers of providers able or willing to work with the MR/DD population. Other challenges include continuous screening needs in an environment where physicians have limited themselves on the number of individuals for whom they will serve as the Medicaid PCP. In some parts of the State of Arkansas this has led to very limited PCP choices for CSHCN whose needs are extensive.

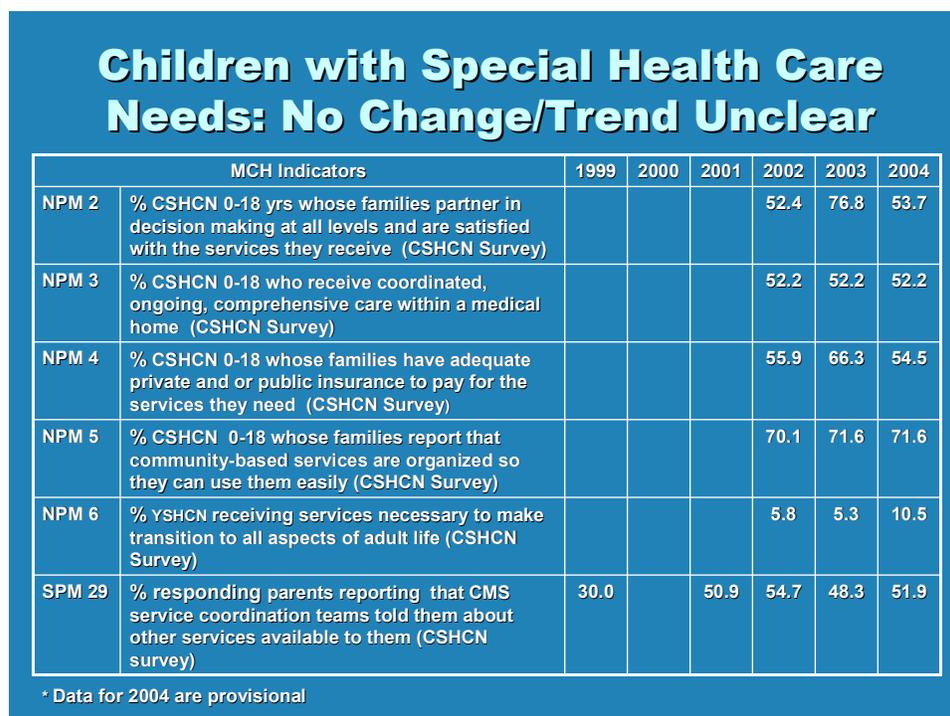
The needs of CSHCN mirror several of those identified for the population. Needs identified by families of CSHCN include transition, where those services begin late in high school for the education component. Transition to adult medical providers is difficult for individuals with diagnoses such as Spina Bifida. There is no clinic setting where multiple specialties are available to provide follow-up in one visit as there is in the Pediatric population. The tertiary care center has made an effort to transition youth to adult providers at age 21, but in many instances has been unable to do so and continue to treat youth at their pediatric facility. Respite services are a tremendous need, as noted by families in the Needs Assessment process. Anecdotally, the need for respite in many instances has led to crises that threaten to break up families. The system currently in place does not meet the extensive needs around the state. There is anecdotal evidence of increasing numbers of children being diagnosed with Type I diabetes, suffering injuries in MVA (both auto and ATV) and with mental/behavioral health needs. For the dually diagnosed, the mental health system proves to be a tremendous challenge with limited numbers of providers able or willing to work with the MR/DD population. Other challenges include continuous screening needs in an environment where physicians have limited themselves on the number of individuals for whom they will serve as the Medicaid PCP. In some parts of the State of Arkansas this has led to very limited PCP choices for CSHCN whose needs are extensive.

Figures 11, 12 and 13 depict MCH Block Grant data trends that are improving, staying the same or worsening for children with special health care needs.

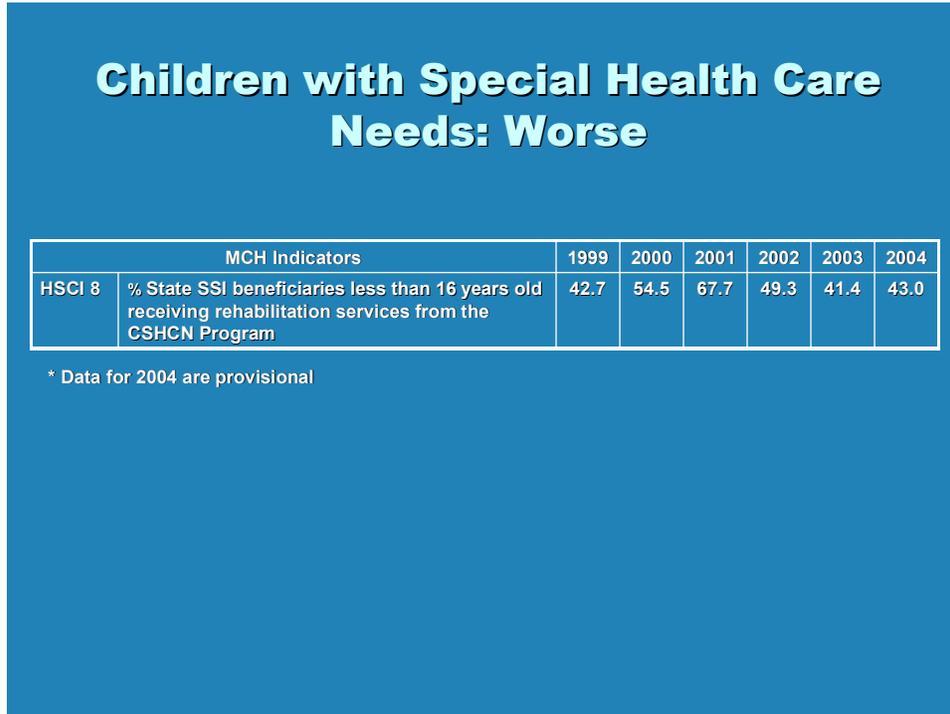
**Figure 11. CSHCN trends that show improvement.**



**Figure 12. CSHCN trends that are remaining level, or the trend is unclear.**



**Figure 13. CSHCN trends that are worsening.**



This trend is of considerable concern because it reflects changes that have occurred in a number of reimbursement programs for families of special needs children. As budget cuts have impacted the state of Arkansas, the Medicaid Program and other related Programs such as Supplemental Security Income (SSI) and Tax Equity and Financial Responsibility Act (TEFRA) programs have had to tighten the list of eligible conditions to control reimbursement spending.

#### **4. Examine the MCH Program Capacity by Pyramid Levels**

##### **a. Direct Health Care Services**

Important concerns exist with regard to access to care regarding availability of preventive and primary care services and specialty services when needed. For pregnant women, private sector physicians overall, have sufficient capacity to handle all pregnant women and their delivery, however as a practical matter, important barriers in access occur. In many communities women who have no health insurance coverage have no access to private care unless they have serious medical complications requiring it. Especially in our larger more urban communities, private physicians are sufficiently busy attending to patients who can pay, that there is little availability in their practices for low income women, even if they have Medicaid. Most practices will not accept low-income pregnant women unless they have been determined presumptively eligible for Medicaid, if then. In communities where this situation exists, Local Health Units tend to operate maternity clinics. In most counties, these clinics have available clinic time to see pregnant women and Women’s Health Nurse Practitioners as clinicians. However, in many counties, especially in the Northwest Region where population growth is dramatic and Spanish-speaking patients are common the Local Health Unit prenatal clinics are overwhelmed.

Where Spanish-speaking patients can find access to LHU prenatal clinics, they will find services addressing nutritional and psychosocial issues preventively. These more comprehensive aspects of prenatal care may not be available in the private doctor's office, so to access them, patients have to go to several places. In general, delivery care is available in hospitals well distributed in the state, however, uninsured women experience short delivery hospital stays in order to minimize out of pocket expenses.

For children, the location of preventive services has shifted dramatically in the last five years, as documented in previous Block Grant applications. Well child clinics in local health units are essentially non-existent, so the MCH Block Grant funding is used to sustain the immunization program for children. Local Health Units, County Human Services Offices, and the AR Kids First Program have streamlined the application process for financial coverage. For the first time, Medicaid and the AR Kids A and B Program have shared through their web page detailed data on enrollment. Compared to an estimated 329,928 children under 200% poverty (UALR Institute for Economic Advancement based on census estimates from 2000), AR Kids A and B together enrolled 290,170 children for FFY 2004. Thus the overall percent of potentially eligible children enrolled was 83.3 percent, a reassuring statistic. However, estimates of those enrolled receiving services paid for by AR Kids are not reassuring. The best data on services relates to Medicaid enrolled children who receive and EPSDT screen (63.2%). This figure is low because not all primary care physicians seeing AR Kids First clients have registered as an EPSDT provider. Many will see these patients and do a complete history, physical and lab workup, but may not have fulfilled all the expectations of an EPSDT screen. Some other numbers provided by Medicaid regarding the proportion of enrolled children being seen in physicians' offices are too low to be meaningful. Until the proper use of these Medicaid billing systems to determine adequacy of care can be developed, Arkansas will have difficulty perceiving the utility of its transition of low-income children to private primary care physicians.

For Children with Special Health Care Needs DDS Children's Services provides gap-filling Direct Services by paying for healthcare for eligible CSHCN up to 185% of poverty who do not have Medicaid coverage. A wide range of diagnoses is covered on an ongoing basis. The program also covers diagnostic evaluations for many children each year regardless of whether or not the child is later determined eligible (medically or financially). CSHCN with Medicaid coverage have needs that are met by the program in the form of purchase of services such as purchase of: prescription medications not covered by Medicaid (Sildenafil and other compound drugs); IPV machines for respiratory therapy needs of premature newborns upon discharge from the hospital; purchase of wheelchair ramps for home and wheelchair lifts for vans; and Respite services covered in the form of summer Med-Camp experiences. Care coordination activities for CSHCN throughout the state. These activities include providing resource information, referrals and serving as advocates for CSHCN and their families.

Regarding emerging issues and direct health care services, oral health, post partum depression, obesity and psychosocial problems like smoking and partner violence, the health care system in Arkansas has very limited accessibility for low-income families. Oral health issues, especially periodontal disease and its relationship to preterm birth attest to the need for greater access for pregnant women to dental care. The number of

dentists in the state is limited relative to the need, and since Medicaid does not pay for dental services for pregnant women, their access is very limited. Mental health providers are also small in number relative to the need, at least in part because of lack of mental health parity for providers of mental health care, and because of the prevalence and prolonged nature of mental and emotional illness. Post partum depression is often missed because the patient never brings the problem to a doctor's attention until the illness is advanced. For children, lack of good parenting and family support is very common among low-income Arkansans. In the early years of childhood, the severe absence of these supports more often shows up as failure to thrive, than as a mental or behavioral problem. As children get into school the behavioral issues become more apparent. Then separating out and dealing with emotional, behavioral and neurodevelopmental issues is complicated and often requires specialty evaluation and management. Patients need mental health as well as developmental specialists for these problems. These specialties are found mainly in a few larger cities of Arkansas, especially Little Rock, requiring families to travel to obtain them. Often these evaluations are the most productive in identifying children with special health care needs.

Many communities in Arkansas are designated as medically underserved. A map appears in Appendix H showing the locations of these communities. Health providers in other health disciplines are even fewer relative to the need. Nutritionists, social workers, speech and hearing specialists including audiologists, genetic counselors, occupational and physical therapists, and many other health disciplines are in short supply in this state. Outside of Little Rock, many of these professionals work only in hospitals, or as part of a home health network, or care for the elderly, and have little general availability, even on referral for young women and children.

Linkages between primary specialty and subspecialty care are largely those of the referral patterns among private physicians in the state. Primary care physicians find backup and continuing education in the Area Health Education Centers Program of the University of Arkansas for Medical Sciences (UAMS), located in many moderate sized towns. UAMS is also making a major effort to develop telemedicine consultation services to overcome the distances involved in patient evaluation. For pregnant women and newborn infants, this effort is carried out in a program called Antenatal and Neonatal Guidelines for Education and Learning Systems (ANGELS). Started by the Department of OBGYN with major funding from Medicaid, ANGELS is now developing guidelines for the identification and referral of medical complications in pregnancy, and also questionnaires to recognize problems such as smoking, partner violence, depression, and substance abuse. These guidelines and their development is shared every Thursday morning through ANGELS telecommunication conferences with obstetricians, pediatricians and family physicians in all corners of the state. ANGELS is also developing and testing questionnaire screeners for these psychosocial issues, and a telephone case-management services to help patients address the problems using resources within or close to their home towns.

For children, the UAMS Area Health Education Program trains primary care physicians in communities throughout the state, attracting young physicians who live in those areas and encouraging them to remain and practice in rural Arkansas. The family practitioner carries the "lion's share" of direct primary care services for children throughout most of

Arkansas. As such, they are often the first provider to identify special problems in children and seek consultation and referral. In especially underserved areas, Community Health Centers provide primary care and chronic disease services. The UAMS Pediatric Department and Arkansas Children's Hospital conduct outreach specialty clinics in selected communities to bring specialty and subspecialty capabilities to rural areas.

#### **b. Enabling Services**

Important concerns also arise with respect to enabling services especially regarding insurance coverage, case management services other than ANGELS, community support systems for substance abuse and partner violence, and many others. For pregnant women the expansions of Medicaid to cover up to 200% of poverty, and to cover immigrant women through the Unborn Child Provision of the Medicaid State Plan have created new opportunities to enhance financial access. However the full impact of these changes is still difficult to evaluate. For the first time Medicaid has shared with us a detailed listing by county and race/ethnicity of enrolled pregnant women. That data documents a total of 32,464 pregnant women served in SFY 2004. Given that about 37,000 births occurred in that time, the relationship between the number served and the number in need is not clear. We are aware that the number of pregnant women delivering that many babies, will be larger due to the fact that some women receiving prenatal care in a given year will not deliver until the subsequent program year. At this writing, time does not permit the detailed data review that the state is both capable of doing and desiring to do, now that new data is available. A particularly noticeable problem is that many Hispanic pregnant women, for fear of deportation, will provide different identification to their employer than they will use in the health care setting. This causes difficulty in accessing insurance coverage that is available from their worksite. Pregnant Hispanic immigrant women frequently speak little English, and need translators. ADH has hired and placed many interpreters in high impact counties especially in Northwestern and Southwestern Arkansas. These workers are critical to smooth and efficient operation of the prenatal clinics experiencing a high number of Spanish-speaking patients. However they are expensive, and ADH is considering ways to get more of its existing staff to become proficient enough to communicate directly with patients around clinical issues. Transportation remains a critical issue for many families who live in rural areas.

For children, many of the same issues exist with regard to language translation, transportation and insurance coverage. WIC and Immunization clinics also require Spanish translation to provide the necessary care, especially to obtain nutritional and immunization histories.

Other health care programs recognize that health care resources are poorly distributed and seek relationships with numerous provider resources, including Title V. The Primary Care Association of Arkansas has developed a collaborative planning process called SHARP that endeavors to pull together all HRSA-funded programs in the state into a strategic planning forum. Through this avenue and many others, MCH staff strive to find planning and collaborative partners to enhance services for mothers and children.

### **c. Population-Based Services**

*Newborn screening* services remain a strong aspect of the MCH programs in Arkansas. Newborn hearing screening now reaches nearly all of Arkansas's newborn babies with physiologic hearing testing in the hospital, or very shortly after discharge when babies have very short stays. Following through to confirm initial findings and to obtain consultation and referral for those in need has developed rapidly. With regard to "blood dot" screening for PKU, Hypothyroidism, Galactosemia and Sickle Cell Disease, Arkansas continues to assess nearly all infants within a few days of birth, and to provide referral and follow-up. ADH provides immunization for children in all local health unit locations, and, during the busy summer months in preparation for school will conduct special immunization clinics. With the advent of the *Vaccine for Children's Program*, ADH has shared more of the vaccine-giving load with private physicians' offices, and maintains a system of purchasing vaccines and supplying it to physicians. ADH has developed a new web-based vaccine registry. This registry is now capturing in real-time, all vaccination given in local health units, and is training private offices throughout the state to enter data on their patients. Public health nurses continue to provide counseling for families experiencing a *sudden infant death*. Much training has been provided these nurses in the past, however renewal of that training has become important. The *Oral Health Program*, under the guidance of Lynn Mouden, DDS, continues to burgeon. The staff includes a Dental Hygienist with health administration training, and a health educator. The number of newly fluoridated water supplies continues to increase. This past year, the Oral Health Program surveyed a total of over 7,000 third graders located in a randomly selected sample of schools, achieving an accurate assessment of the prevalence of dental sealants among Arkansas's school children. Dr. Mouden has planned and put on the Governor's Summit on Oral Health, a statewide conference for dentists, dental hygienists and other oral health care providers in the state, bringing awareness of current issues in oral health care to many oral health community leaders. The *Injury Prevention Program*, funded largely with Preventive Health Services Block Grant funds has worked very closely with UAMS and a statewide coalition to enhance public awareness of the importance of injury as a major cause of morbidity and mortality among Arkansans. Their efforts, and those of law enforcement personnel all over the state have succeeded in reducing many measures of injury prevalence in Arkansas. *Lead screening*, however, has nearly completely gone over to the private sector since Medicaid established its primary care physician system for enrolled children. The state lab now only rarely does lead screening testing, and may drop it completely very soon.

### **d. Infrastructure-Building Services**

The ADH and the Children's Medical Services Program of DHS make consistent efforts to promote comprehensive systems of services. The state agencies both maintain widely distributed local offices and clinics in every county in the state that form the network within and around which each agency builds its local services. The ADH, in addition to its local health unit clinic and home health services, builds a community-based capacity through the Hometown Health Improvement (HHI) staff. Hometown Health Coalitions exist in over 50 counties in which community leaders come together to discuss health issues and plan activities to address them. In each County, the Local Health Unit

Administrator is also the Hometown Health Improvement Leader and works closely with the community to develop these activities. In addition to the local health unit network, the ADH has established five regional leadership teams. The agency guides and funds the regions through Franchise Agreements, carrying fiscal and managerial authority from the central office leadership to the communities.

CSHCN staff members make referrals to various Medicaid and other DHS programs including Supplemental Security Income and the Tax Equity and Fiscal Responsibility Act, 1982 (TEFRA) program upon determining that the child or youth and their family are potentially eligible for the program. This assessment is made with review of information about the family income and resources as well as the child or youth's medical condition for those programs for which that is part of the eligibility standard. SSI Disability Determination in Arkansas makes referral to the CSHCN program whenever any individual under age 16 applies for SSI. This allows contact from our staff and referral to other programs that may be able to assist the child.

Other groups have been very important to the development of public health infrastructure. The Board of Health, supported by the DOH, is the primary health policy body in the state; however, it has been joined in the past five years by the Arkansas Center for Health Improvement (ACHI). ACHI, headed by Dr. Joseph Thompson, a pediatrician with fellowship training with the federal Agency for Healthcare Research and Quality, has provided major leadership to Arkansas in several highly visible areas. During the state's efforts to realize the benefits of the Tobacco Settlement, Dr. Thompson worked closely with Governor Huckabee and a broad coalition of state community leaders called the Coalition for a Healthier Arkansas Today (CHART) to develop and implement a statewide tobacco prevention plan. The CHART plan dedicated all tobacco funds to health care only, a situation that remains today, uniquely among states. Subsequently, through the assistance of ACHI, ADH and UAMS developed the strategic plan to establish a new College of Public Health at UAMS. That college is now in its fourth year of classes and has graduated two cohorts of students with MPH degrees or Certificates in Public Health. The first two cohorts of doctoral students have initiated the new DrPH program. Public health physicians have been active with the Arkansas Academy of Pediatrics, the Academy of Family Physicians, and the Arkansas Chapter of the American College of Obstetricians and Gynecologists. Members of these associations participate on the Board of Health.

For CSHCN, CSHCN staff is very active at the State level as well as on the local level in infrastructure development. At the State level, activities include membership on the Together We Can (TWC) Steering Committee, Part C Interagency Coordination Council (ICC), Child and Adolescent Service System Program (CASSP), and steering committees for the Arkansas Early Childhood Comprehensive Systems Initiative. At the local level, staff is active with local TWC teams serving children and families in crisis; working in a leadership role with providers and consumers on local ICC teams; serving on regional CASSP teams; and serving on local Hometown Health Initiative teams.

Arkansas's major efforts toward standards of care revolve around the growing effort to develop evidence-based guidelines for many areas of Maternal and Child Health care. The Antenatal and Neonatal Guidelines (ANGELS) Program is one of the most

prominent such efforts. However, the Medicaid Program has made major commitments to this effort for the development of primary care physician services for children in addition to ANGELS. The Primary Care Association promulgates the concepts of the Care Model for management of chronic diseases in the primary care setting. The College of Public Health is articulating an interest in translational research bringing new scientific knowledge to improve “bedside” care. Continuous quality improvement is at the heart of the Hometown Health Improvement Program of ADH. As the MCH Programs in both ADH and DHS follow their progress with respect to the Performance Measures, that progress will receive constant re-evaluation. That re-evaluation goes on at the level of the senior leadership of the agency and the Regional Leadership Teams and will continue more vigorously in the future. The Hometown Health Improvement Program has an extensive data-gathering system through the Local and Regional HHI Leaders. With respect to MCH populations, Maternity, Family Planning and Immunization services are all monitored through the Encounter Forms system of ADH, and each Regional Team has an epidemiologist who keeps track of measures such as infant mortality and low birth weight rates, but especially percent of births with first trimester prenatal care.

## **5. Selection of State Priority Needs**

The MCH Block Grant Planning Team, in the light of the recommendations from the Stakeholders’ group and the trends seen in the Performance Measures, decided to continue with all state priorities followed in the past, and to add one more State Performance Measure. The tenth priority is devoted to measuring BMI in Family Planning patients, provide education and written materials to clients, and make referrals to community sources of support for healthy lifestyles with respect to nutrition and physical exercise. Within state priorities devoted to Pregnant Women and Infants, Children, and Children with Special Health Care Needs, new activities will be added to implement the four new partnerships recommended by the Stakeholders.

### **C. Needs Assessment Summary**

1. The MCH Planning Team selected the following State Priorities:

- To reduce the percentage of women smoking during pregnancy
- To reduce the percentage of high school students engaging in sexual intercourse
- To increase the percentage of children 0-18 and below 200% of poverty who are enrolled in the AR Kids First Program
- To increase the percentage of pregnant women counseled for HIV testing
- To reduce the percentage of children who are overweight among WIC children 0-5 years of age.
- To increase the percentage of 14 and 15 year olds on CMS who state that CMS transition services have helped improve their knowledge/ability to transition to adult life
- To increase the percentage of parents responding on the CMS Parent Satisfaction Survey that CMS service coordination teams told them about other services available to them
- To reduce the percentage of public school students who are overweight (greater than the 95<sup>th</sup> percentile of weight for height)

- To reduce the percentage of public school students at risk for overweight (85<sup>th</sup> to 95<sup>th</sup> percentile of weight for height)
- New: To increase the percentage of Family Planning clients with BMI greater than the 85<sup>th</sup> percentile who receive educational materials in the Family Planning clinics, and are referred to community sources of counseling and support.

The primary change in the priorities listing was to add a new priority as listed in 10 above.

2. The process to determine the priority needs began with a thorough review of data elements relative to a wide range of health issues relevant to women and children. Organizers of the Needs Assessment effort established the MCH Planning Team, made up of leaders from Family Health including the Perinatal Health and Reproductive Health Programs in the Women's Health Work Unit, the Child and Adolescent Health Work Unit, the Oral Health Work Unit, the WIC Work Unit and the Children's Medical Services Program of the Department of Human Services. The Planning Team then organized a group of external Stakeholders to obtain input from a wide range of community, university, academic and state agency leaders to share their priorities.

3. The partnership building effort began with the formation of the Stakeholders' group. The Stakeholders developed a list of 14 priority issues of importance to women and children presented in the following list:

- Obesity, nutrition and physical activity
- Access to care, especially for prenatal care, routine child care, and CYSHCN
- Smoking and tobacco use
- Chronic diseases, especially obesity, diabetes, hypertension, cancer and heart disease
- Needs for health education and behavior change, especially public awareness and marketing, sexuality and early prenatal care
- Communicable diseases, especially HIV, STDs, Immunization-preventable illness
- Need to address health system complexity through care coordination and family-centered approaches such as the medical home
- Need to improve child health screening programs and care coordination, Especially EPSDT, Newborn screening and AR Kids First as a way to support preventive services
- Mental health, suicide, depression and chronic stress
- Application of distance communications technology – telemedicine, distance learning, knowledge management, consultation and referrals
- Oral health for all children, but especially for pregnant women and CYSHCN
- Domestic violence prevention
- Injury prevention
- Substance abuse treatment and prevention including alcohol.

As the Planning Team reviewed the national priorities and chose the state priorities, the above list was considered.

In addition, the Stakeholders made recommendations that four partnerships be developed to encourage collaboration and strategic planning for women and children. Those partnerships addressed:

- Pregnant women and infants
- Children's services and systems of care
- Children and youth with special health care needs, and
- Women

These are the four planning partnerships envisioned to begin in the 2005-2006 federal fiscal year. Plans for their implementation appear in the activities listings under the appropriate State Performance Measure.

The MCH Planning Team considered these priorities and recommendations in completing the needs assessment. They recognized that many of the themes of interest presented in the Stakeholders' priority list were already being addressed through priorities that existed in the national performance measures, especially the access to care issues for pregnant women, children and children with special health care needs. Many of the other issues will be brought forward to the envisioned partnerships also recommended by the Stakeholders. MCH Staff used the following methods to engage external stakeholders in the planning dialogue:

- Keeping meetings to a minimum number and to one day in duration.
- Sharing a broad concept within which to collaborate by describing "upstream /downstream" notion and urging all participants to think of priorities in this framework.
- Showing how community-based thinking enhances partnership building.
- Initiating meetings by having all participants introduce themselves and state their interests and passions related to the health of women and children
- Setting ground rules to guide the discussion indicating that every participant is to be active in expressing their ideas and that as many of those ideas as possible would be captured on newsprint and in minutes
- Expressing the intent of the MCH program staff to incorporate as many of their suggestions in the development of the Block Grant application.

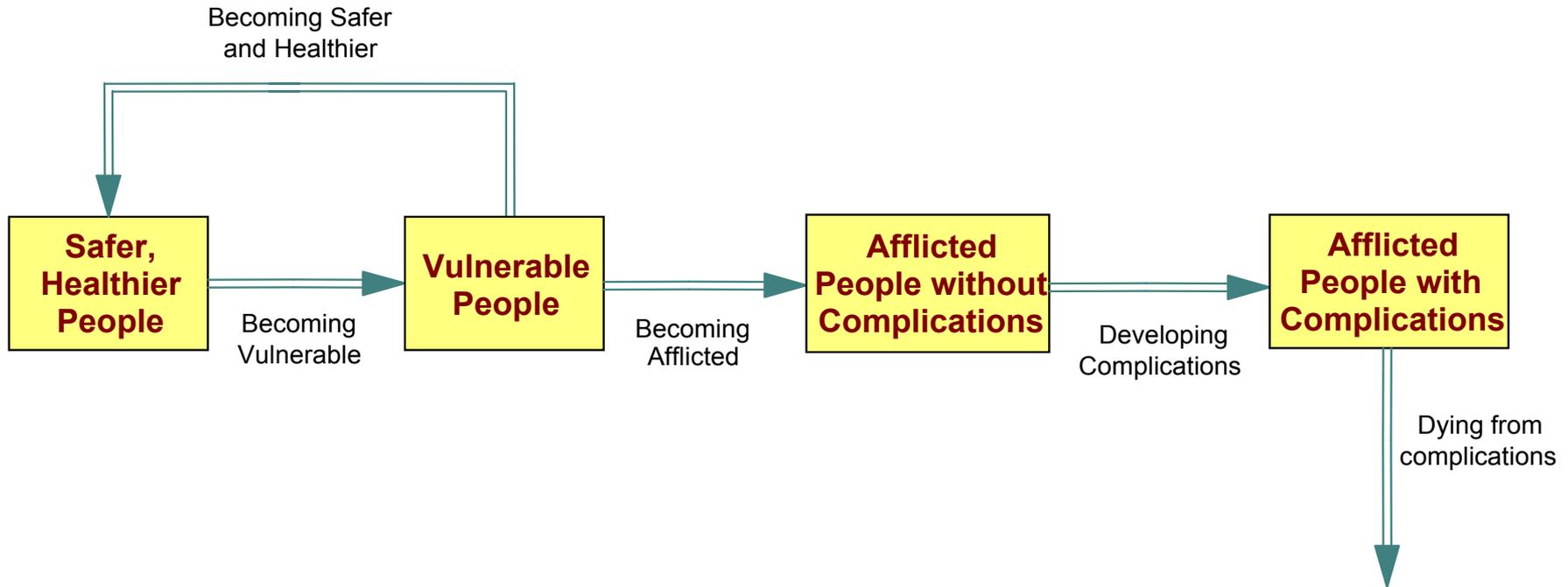
4. The Stakeholders' priority issues and recommendations appear in the 10 application priorities as follows:

- The top Stakeholder priority issue of obesity, nutrition and physical activity was added as the 10<sup>th</sup> priority of the application and appears in two performance measures related to measuring body mass index in schools.
- The smoking and tobacco issue appears in the first priority to reduce smoking among pregnant women
- The Stakeholders issues around health education and behavior change appear in the third performance measure to reduce the percentage of high school students who engage in sexual intercourse.

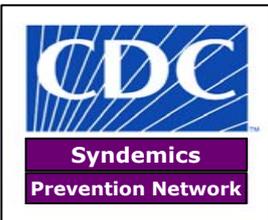
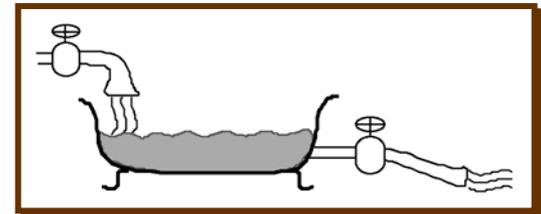
- The Stakeholder priority issue around communicable diseases appears in the fifth application priority for testing for HIV in pregnancy.
- The Stakeholder priority issue of obesity appears again in the fifth application priority around reducing overweight among WIC children 0-5 years, as well as the two performance measures mentioned in a. above having to do with measuring BMI in schools.
- The Stakeholders' priority issue concerning health system complexity for children with special health care needs is reflected in application priorities regarding transition to adult life for adolescents. It appears in two application priorities including adolescent transition to adult life, and parent satisfaction that CMS service coordination resulted in greater knowledge about available services.
- Other Stakeholders' interests such as other mental and oral health issues may well get addressed in subsequent meetings as the partnership groups get set up. Certainly many of the interests around screening pregnant women for psychosocial issues such as depression, substance abuse and partner violence will get addressed as ADH develops its partnership with UAMS around the ANGELS Project.

Changes in the state's capacity to meet the needs of children especially should occur as part of the reorganization of state agencies forming the new Arkansas Department of Health and Human Services. Some of the data problems around AR Kids First enrollment and services will be addressed as staff from both agencies start working together around the same information technology systems.

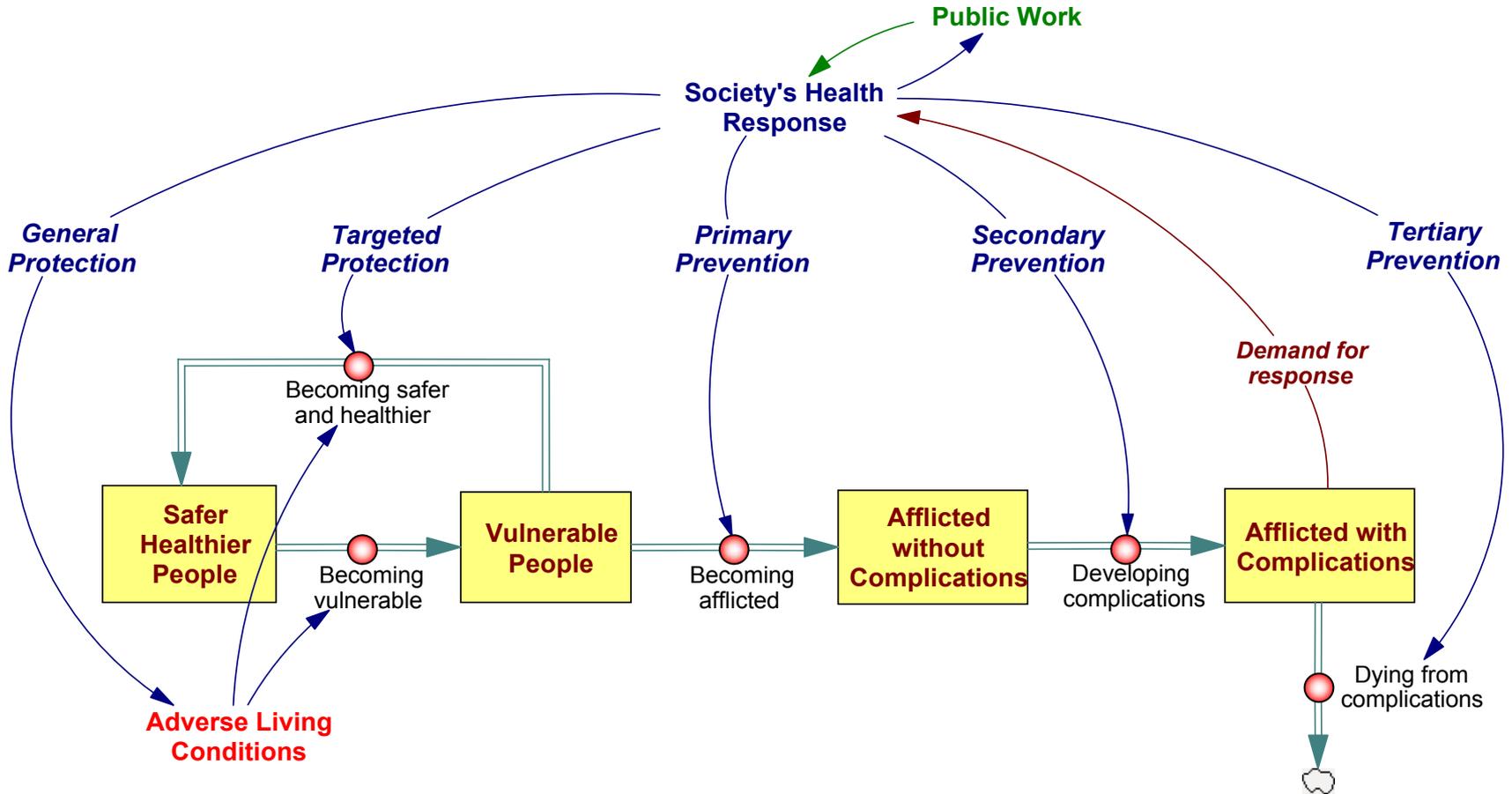
# Health Protection as a System



From: Milstein B, Homer J. *The dynamics of upstream and downstream: why is so hard for the health system to work upstream, and what can be done about it?* CDC Futures Health Systems Workgroup; Atlanta, GA; 2003.



# Toward a Balanced System of Health Protection



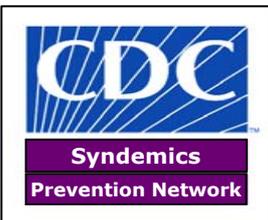
*"One major task that CDC is intending to address is balancing this portfolio of our health system so that there is much greater emphasis placed on health protection, on making sure that we invest the same kind of intense resources into keeping people healthier or helping them return to a state of health and low vulnerability as we do to disease care and end of life care."*

-- Julie Gerberding

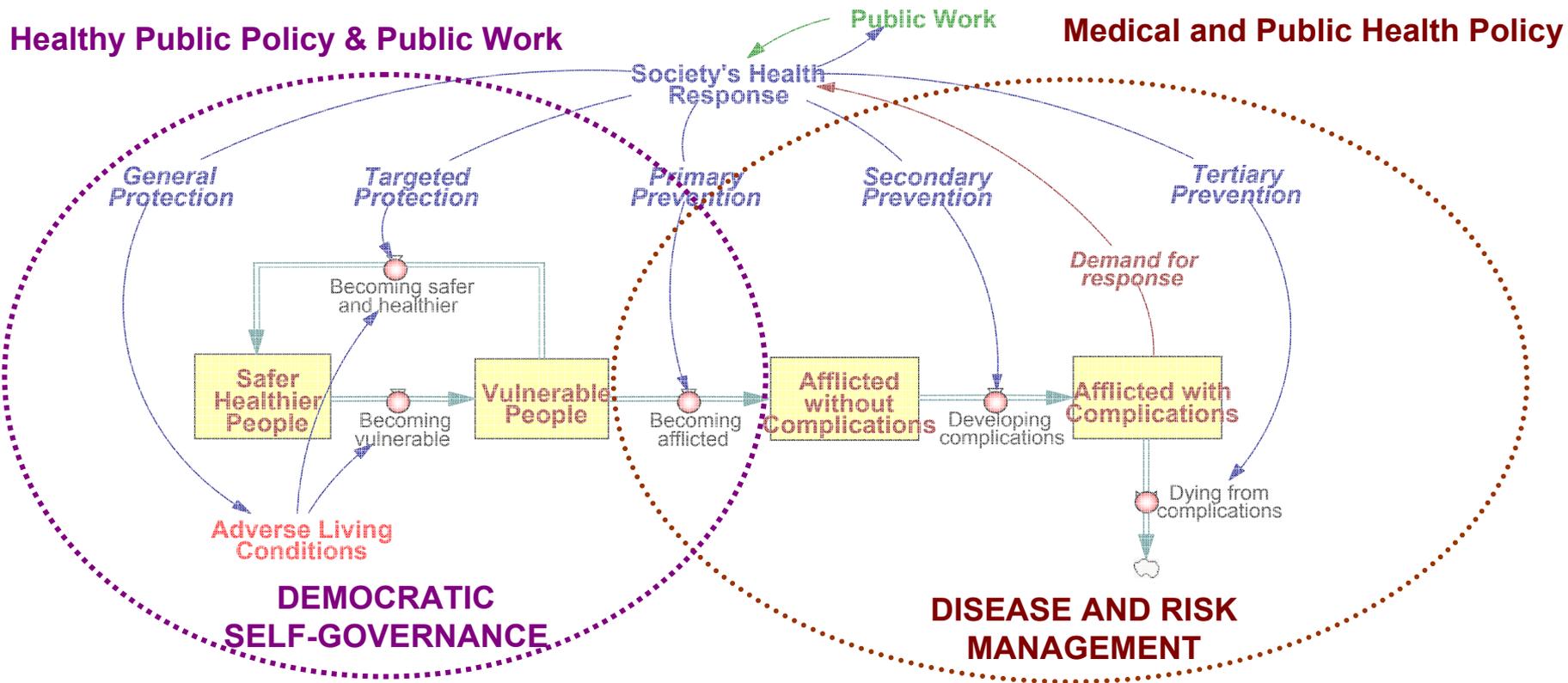
Gerberding JL. CDC's futures initiative. Atlanta, GA: Public Health Training Network; April 12, 2004.

Jackson DJ, Valdesseri R, CDC Futures Health Systems Work Group. Health systems work group report. Atlanta, GA: Centers for Disease Control and Prevention, Office of Strategy and Innovation; January 6, 2004.

Milstein B, Homer J. The dynamics of upstream and downstream: why is so hard for the health system to work upstream, and what can be done about it? CDC Futures Health Systems Work Group; Atlanta, GA; December 3, 2003.



# Balancing Two Major Areas of Emphasis



## World of Transforming...

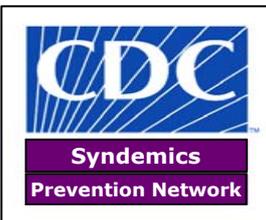
- Deprivation
- Dependency
- Violence
- Disconnection
- Environmental decay
- Stress
- Insecurity
- Etc...

## By Strengthening...

- Leaders and institutions
- Foresight and precaution
- The meaning of work
- Mutual accountability
- Plurality
- Democracy
- Freedom
- Etc...

## World of Providing...

- Education
- Screening
- Disease management
- Pharmaceuticals
- Clinical services
- Physical and financial access
- Etc...



**External Stakeholders' Group  
December, 2004**

**[Summary: 25 External and 9 internal**

<b>Stakeholder group</b>	<b>Name</b>	<b>Roles</b>
<b>A. Community and Parents</b>		
1. Central Region	Arana, Reuben	Arkansas Human Development Center
2. Northeast Region	Taylor, Ramona	Community Based Organizations
3. Northwest Region	Strobel, Jerry	Business
4. Southeast Region	Collins, Vaniesse	Minorities
5. Southwest Region	Gibson, Joyce	Education
6. Statewide (Parents)	Farley, Rodney	Parents
<b>B. ADH Regional Teams</b>		
1. Central Region	Montgomery, Darrell	Hometown Health Improvement Leaders
2. Northeast Region	Desio, Alma	Nurses
3. Northwest Region	Bourne, David, MD	Physicians
4. Southeast Region	Anthes, Cherie	Nurses
5. Southwest Region	Moudy, Susan	Hometown Health Improvement Leaders
<b>C. UAMS</b>		
1. College of Public Health	Halverson, Paul, DrPH	Public Health Leadership
	Huff, Anna M	Minorities, African American
2. College of Medicine	Feild, Charles, MD	Pediatrics Basic
	Schulz, Eldon, MD	Pediatrics Special Needs
	Lowery, Curtis, MD	Perinatal Care (ANGELS)
	Ochoa, Eduardo, MD	Minorities, Hispanic
	Strode, Steven, MD	Family Medicine, AHEC
<b>D. State Agencies</b>		
1. Arkansas Dept.of Health	Hiett, Martha or designee	Healthy Arkansas
	Patterson, Chris	Hometown Health Improvement Initiative
2. Arkansas Dept. of Human Resources	Wright, Robert	County Operations
	Davenport, Regina	Children's Services
3. Arkansas Dept. of Education	Tullos, Susanne	Community Health Education
4. Community Health Centers	Mouden, Sip	Health Planning and Partnership
5. Arkansas Advocates for Children and Families	Sanders, Rhonda	Advocacy
<b>E. MCH Planning Team</b>		
1. Family Health Medical Leader	Richard Nugent, MD*	* = Staff to meetings
2. Family Health Administrative Leader	Carladder Parham*	
3. MCH Block Grant Manager	Kaleem Sayyed*	
4. Women's Health	Brad Planey*	
5. Child and Adolescent	Shaun Addison*	
6. Hometown Health	Andi Ridgway*	
7. CSHCN	Nancy Holder*	
8. Oral Health	Lynn Mouden	
9. WIC	Roger Chinn	

# MCH Data Report

✦ Demographics of MCH Population

✦ MCH Health Status

- ◆ Infant's Health

- ◆ Child & Adolescent's Health

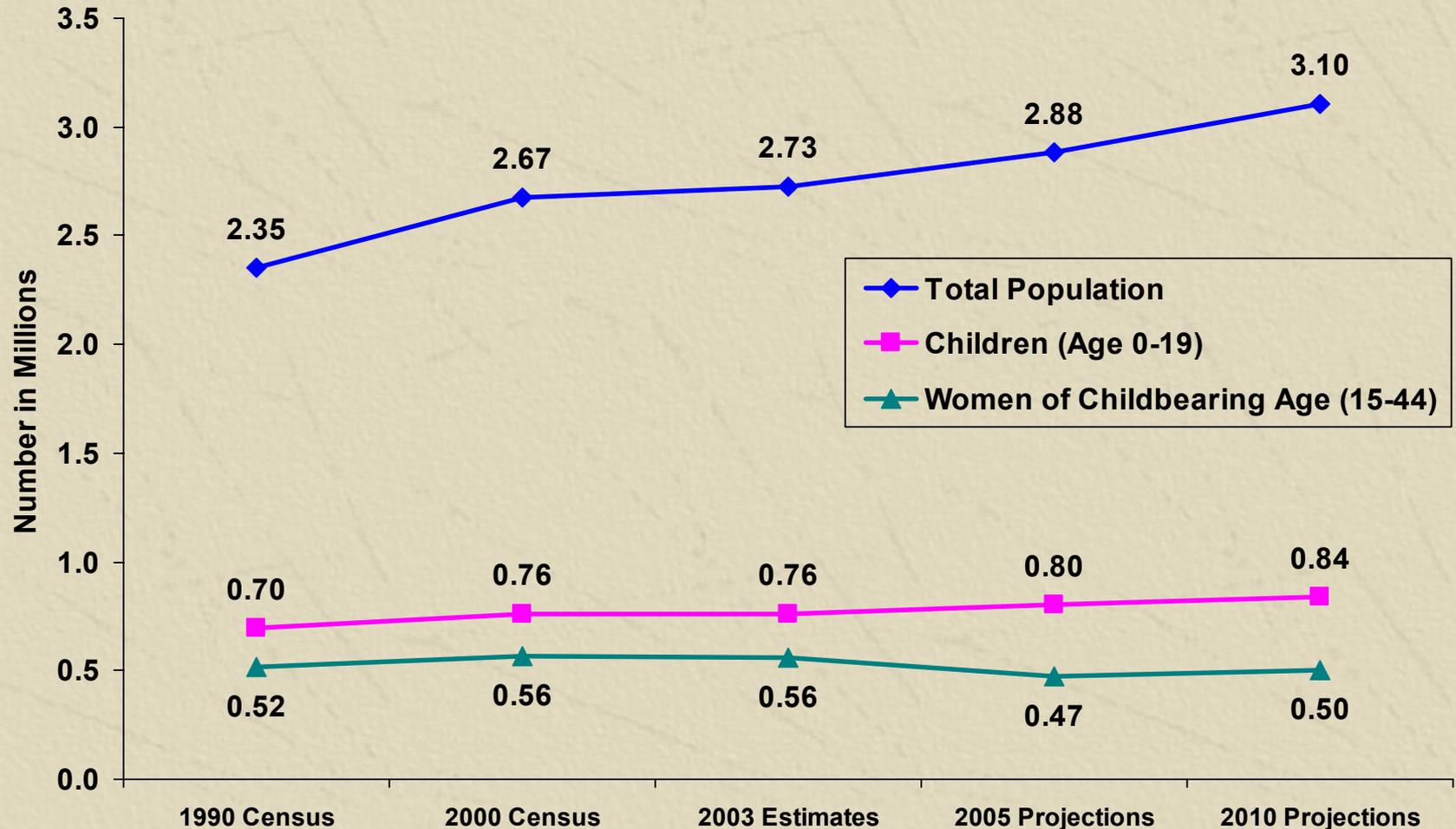
- ◆ Women's Health

- ◆ Children with Special Health Care Needs (CSHCN)

✦ Health System Capacity

# Demographics: MCH Population

Figure 1. Total Population, Infants & Children, and Women of Childbearing Age: Arkansas, 1990-2010



# Demographics: MCH Population

Table 1. Population in Race and Hispanic Origin Groups: Arkansas, 2003

Race/Ethnicity	Total Population	Infants & Children	Women of Childbearing Age
White	2,229,489	580,990	441,195
Black	447,263	165,458	106,574
American Indian/Alaska Native	20,691	6,521	4,901
Asian/Pacific Islander	28,272	7,775	7,752
<b>All Races</b>	<b>2,725,715</b>	<b>760,744</b>	<b>560,422</b>
Hispanic/Latino	100,379	39,944	22,220

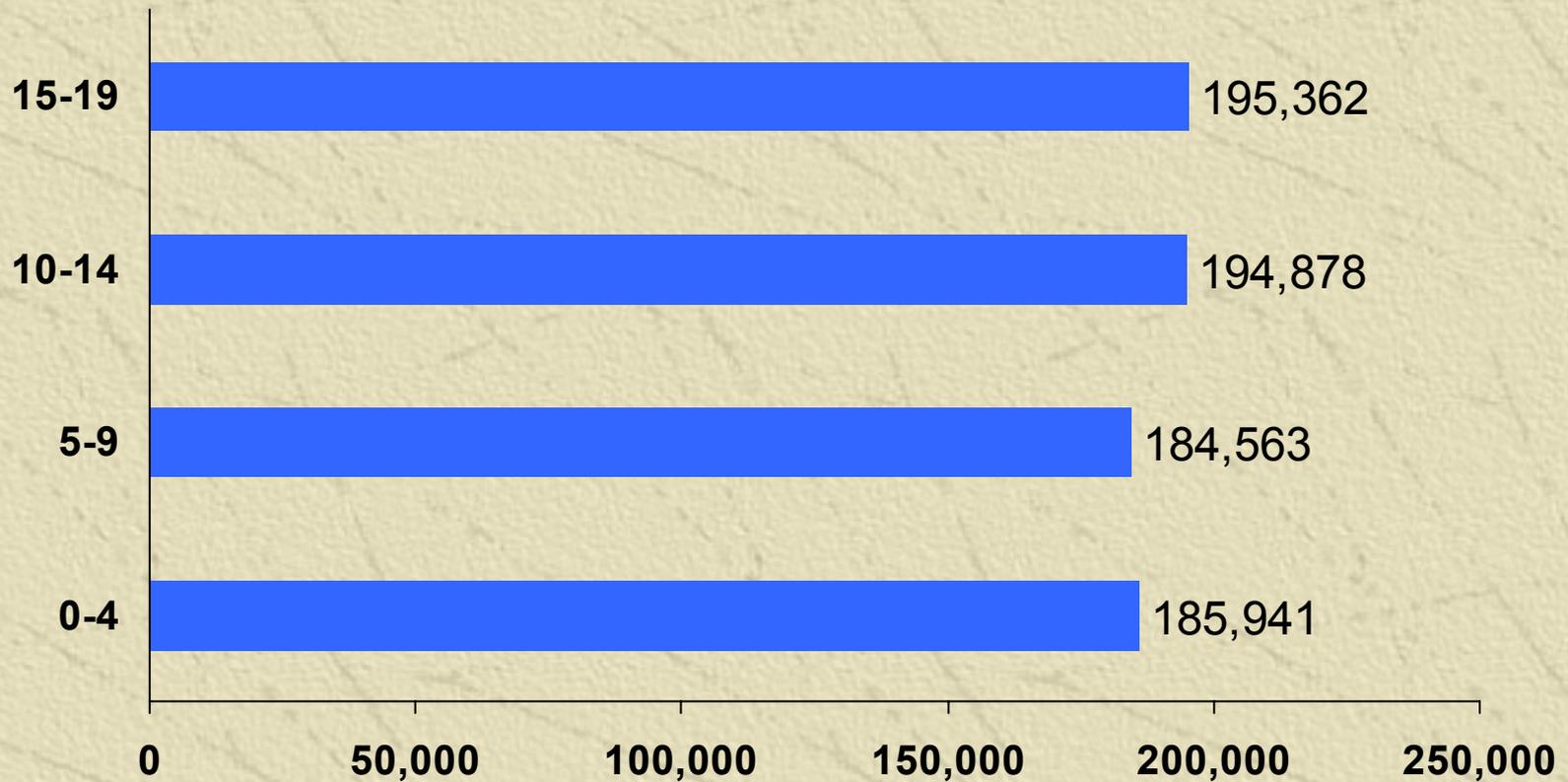
# Demographics: MCH Population

**Table 2. Percent of Population in Race and Hispanic Origin Groups: Arkansas, 2003**

<b>Race/Ethnicity</b>	<b>Total Population</b>	<b>Infants &amp; Children</b>	<b>Women of Childbearing Age</b>
White	81.8	76.4	78.7
Black	16.4	21.7	19.0
American Indian/Alaska Native	0.8	0.9	0.9
Asian/Pacific Islander	1.0	1.0	1.4
<b>All Races</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Hispanic/Latino	3.7	5.3	4.0

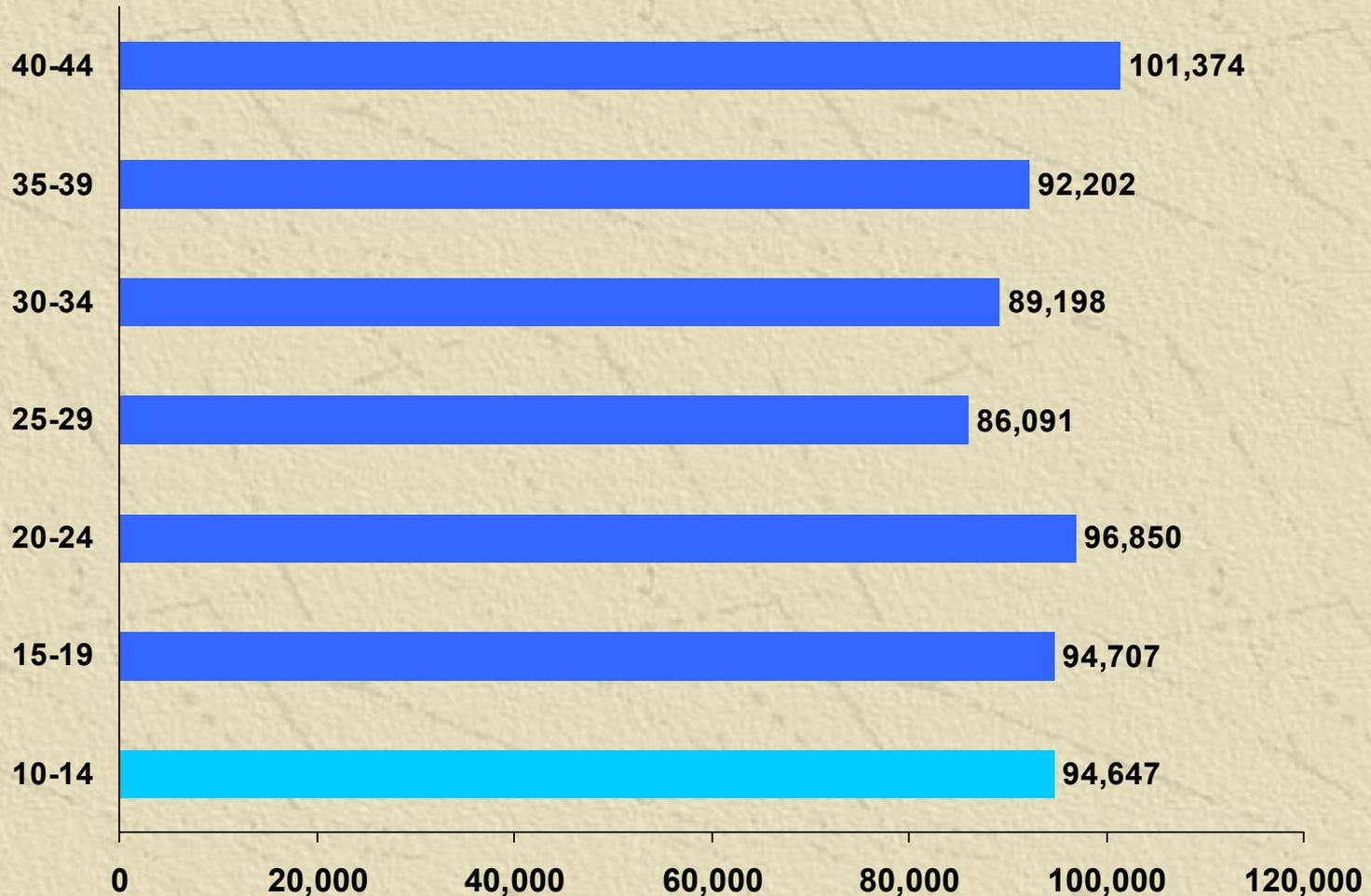
# Demographics: Infants & Children

Figure 3. Infants & Children by Age: Arkansas, 2003



# Demographics: Women of Childbearing Age

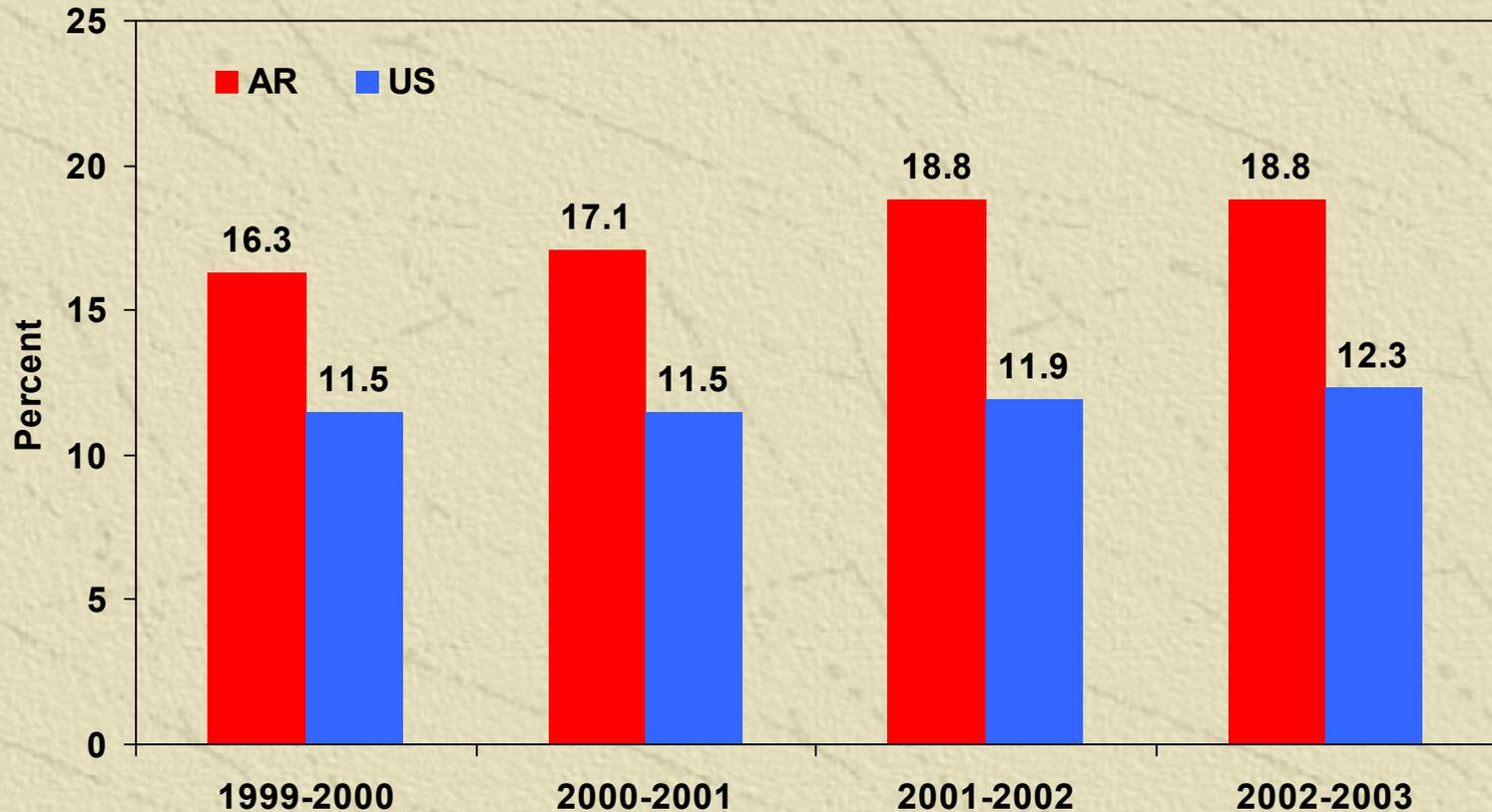
Figure 5. Women of Childbearing Age: Arkansas, 2003



Data source: Institute for Economic Advancement (IEA), College of Business Administration, UALR

# Demographics: Population in Poverty

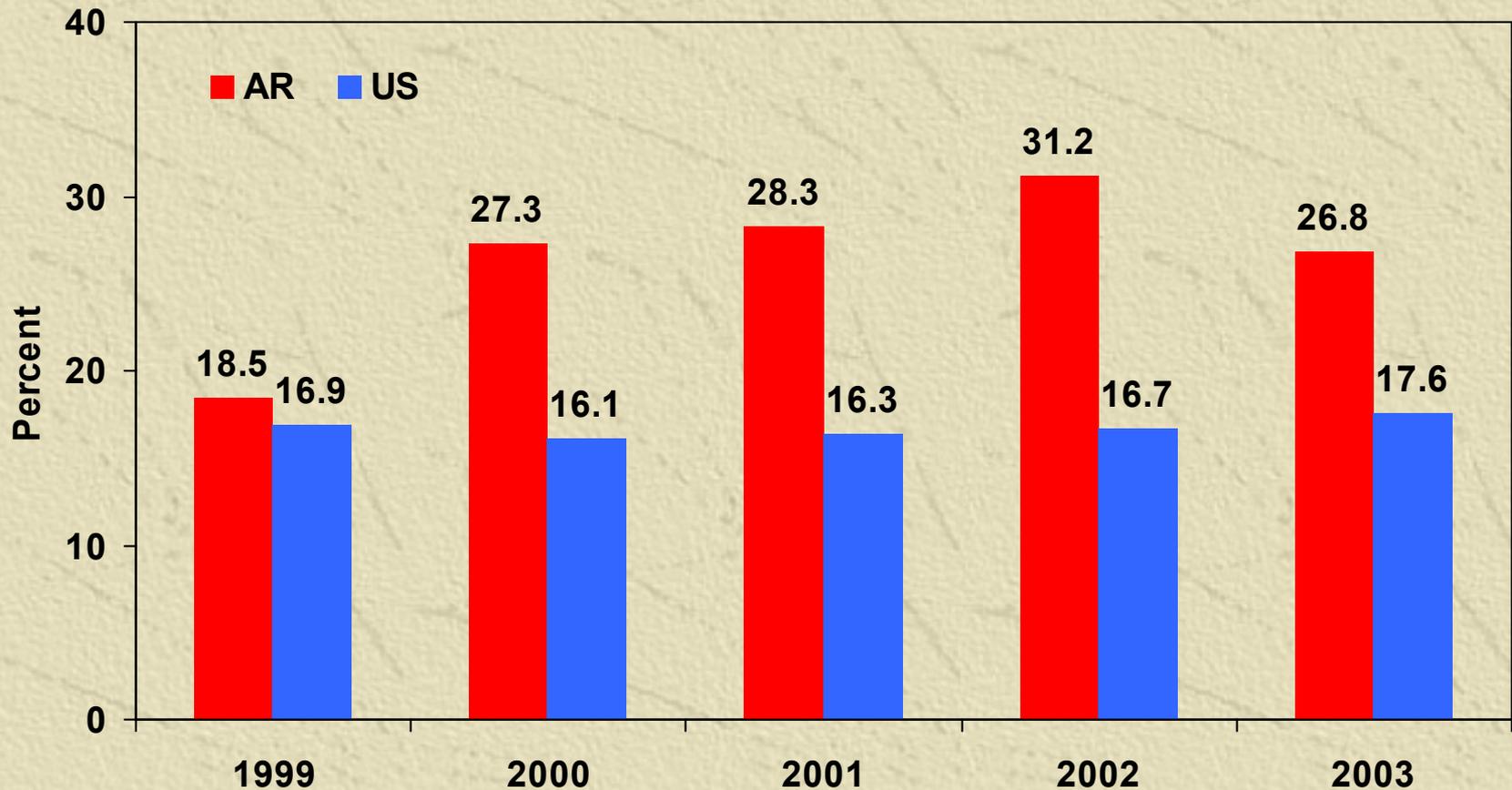
**Figure 6. Percent population below 100% of poverty, three-year averages:  
AR vs. US, 1999-2003**



Data source: U.S. Census Bureau, Current Population Survey (CPS).

# Demographics: Children in Poverty

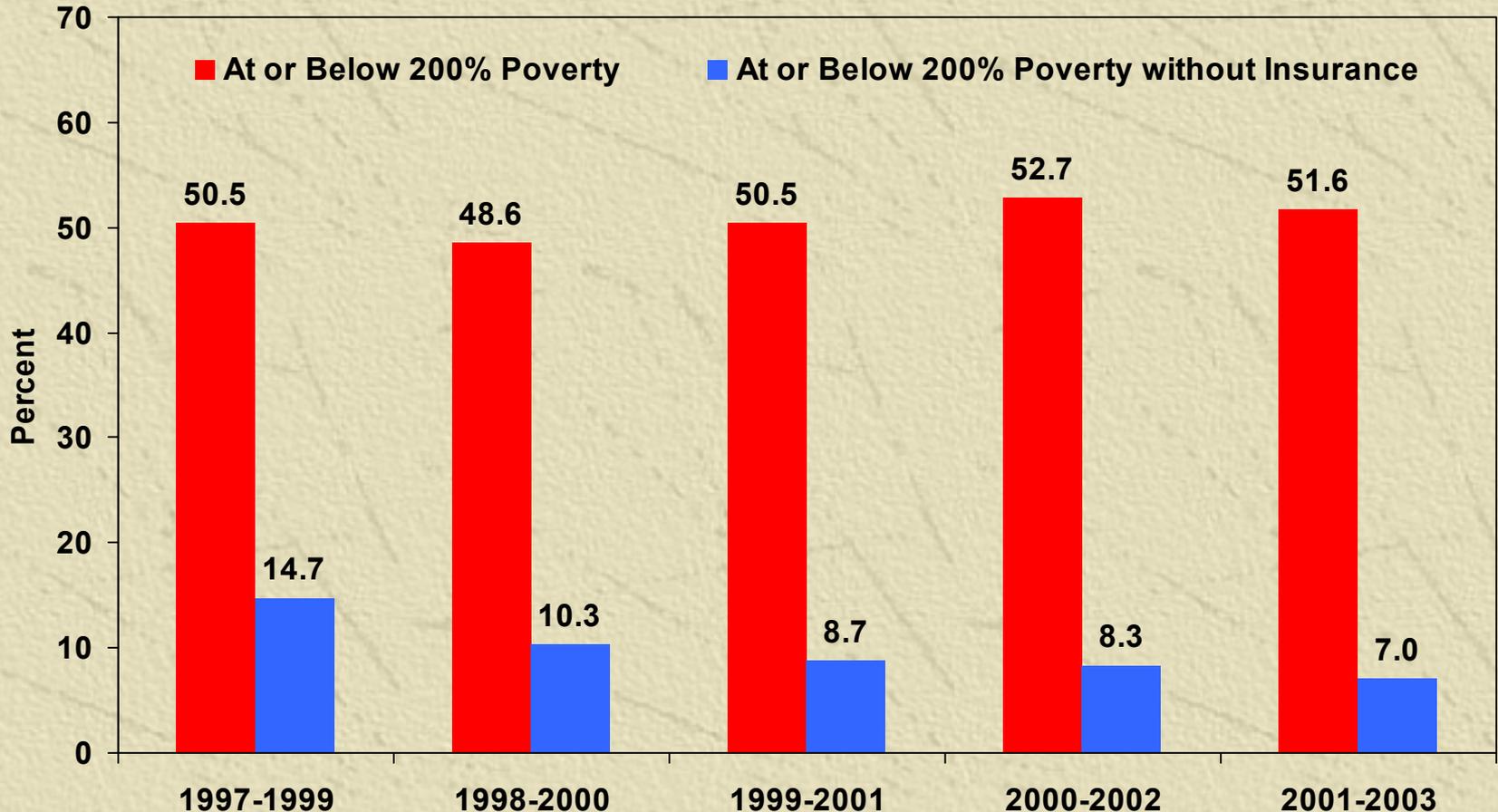
Figure 7. Annual percentage of children under 18 years of age below 100% of poverty: AR vs. US, 1999-2003



Data source: U.S. Census Bureau, Current Population Survey (CPS).

# Demographics: Children without Insurance

Figure 7. Percent children under 19 years of age, at or below 200% of poverty, and at or below 200% of poverty without health insurance, three-year averages: AR vs. US, 1999-2003



Data source: U.S. Census Bureau, Current Population Survey (CPS).

# Infant's Health

- ✦ 2003 Births Overview
- ✦ Birth Rate
- ✦ Perinatal Health
- ✦ Infant's Health

# 2003 Births Overview

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- ✦ 37,761 babies were born in Arkansas, general fertility rate was 67 births per 1,000 women of childbearing age 15-44
- ✦ 15% ( 5,684 ) were born to teen mothers
- ✦ 38% ( 14,336 ) were born to unmarried mothers
- ✦ 13.1% ( 4,951 ) were born preterm
- ✦ 8.9% ( 3,365 ) were born low birthweight
- ✦ 20% ( 7,488 ) were born to mothers who did not receive prenatal care in the 1<sup>st</sup> trimester
- ✦ Babies died before their first birthday
- ✦ Newborn Screening

# 2003 Births Overview: Births by Race/Ethnicity

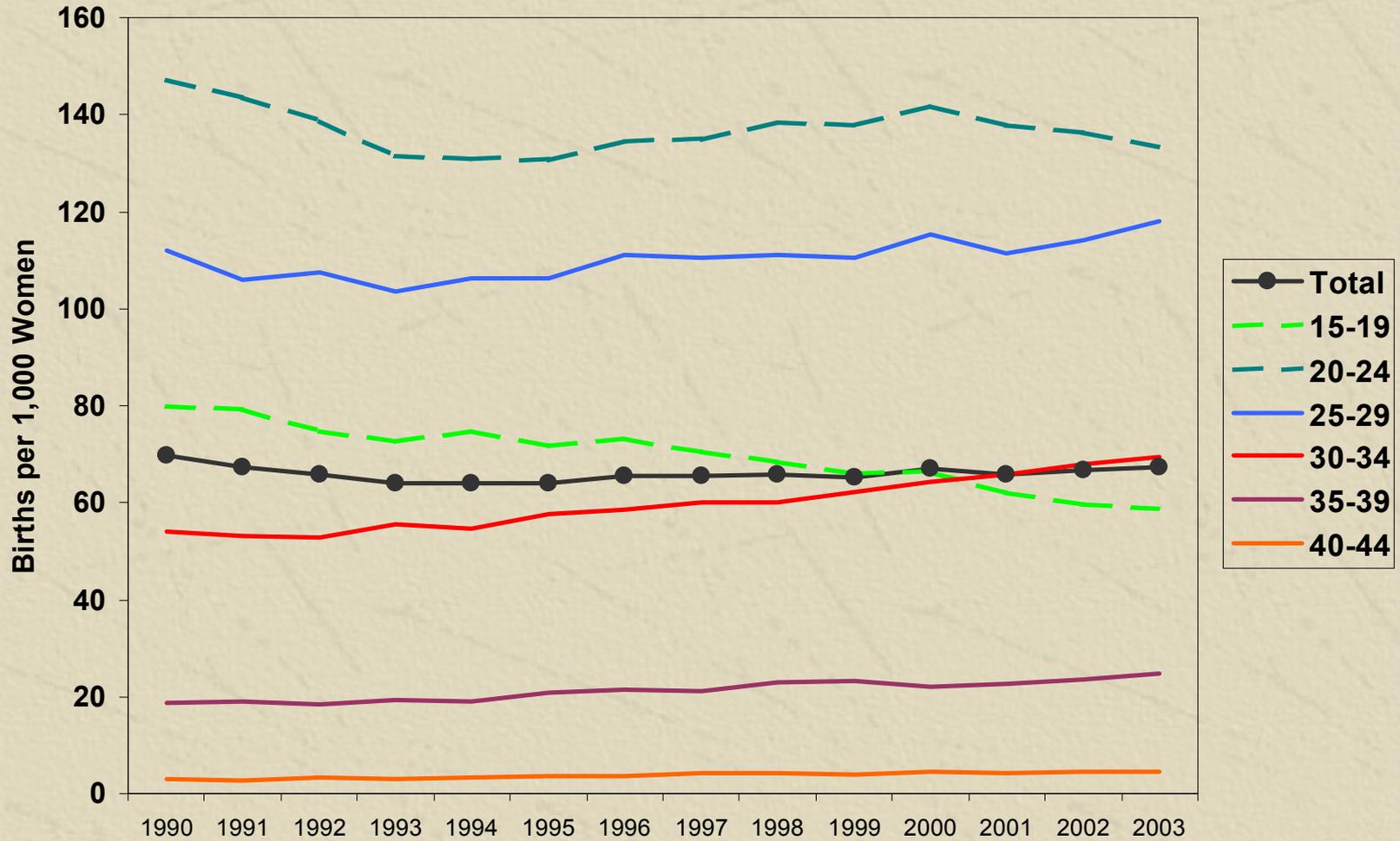
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**Table Births by race/ethnicity: Arkansas 2001-2003**

<b>Race/Ethnicity</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>Change</b>
All Races	37,010	37,437	<b>37,761</b>	+0.86%
NonHispanic White	26,082	26,001	<b>26,389</b>	+1.49%
NonHispanic Black	7,422	7,415	<b>7,156</b>	-3.49%
Hispanic	2,649	3,050	<b>3,281</b>	+7.57%
Other	857	971	<b>935</b>	+3.71%

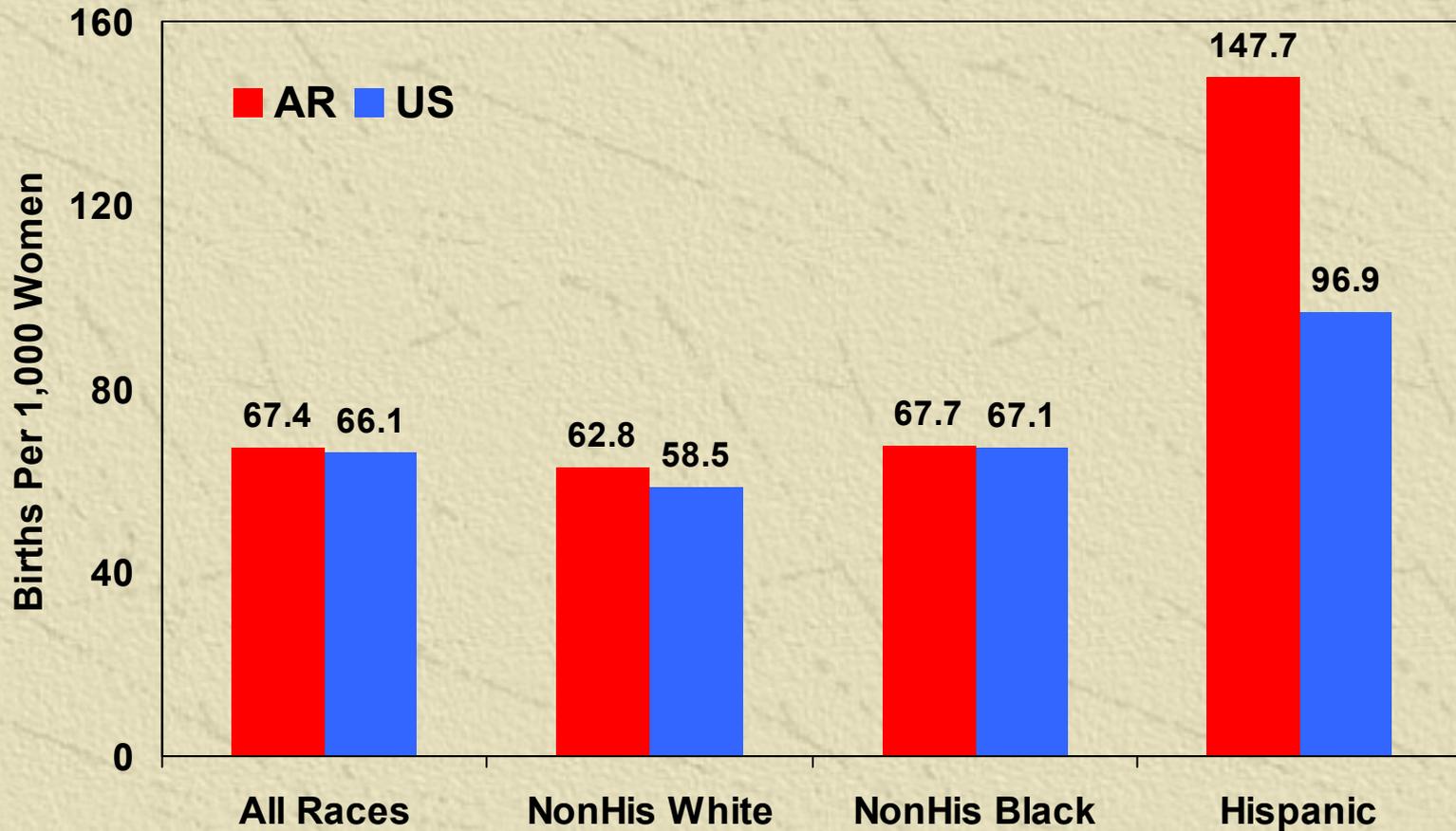
# Birth Rate: Trend

Figure Birth Rate by Maternal Age: Arkansas 1990-2003



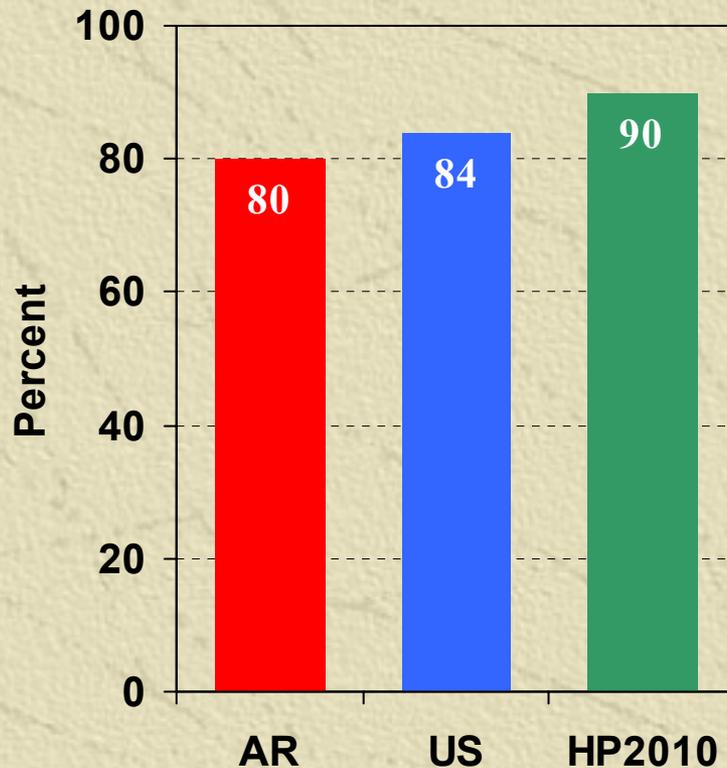
# Birth Rate: by Race/Ethnicity

Figure Fertility Rate by Race/Ethnicity: AR vs. US, 2003



# Perinatal Health: Prenatal Care

**Table Percent babies born to mother who had prenatal care in 1<sup>st</sup> trimester:  
AR vs. US 2003**

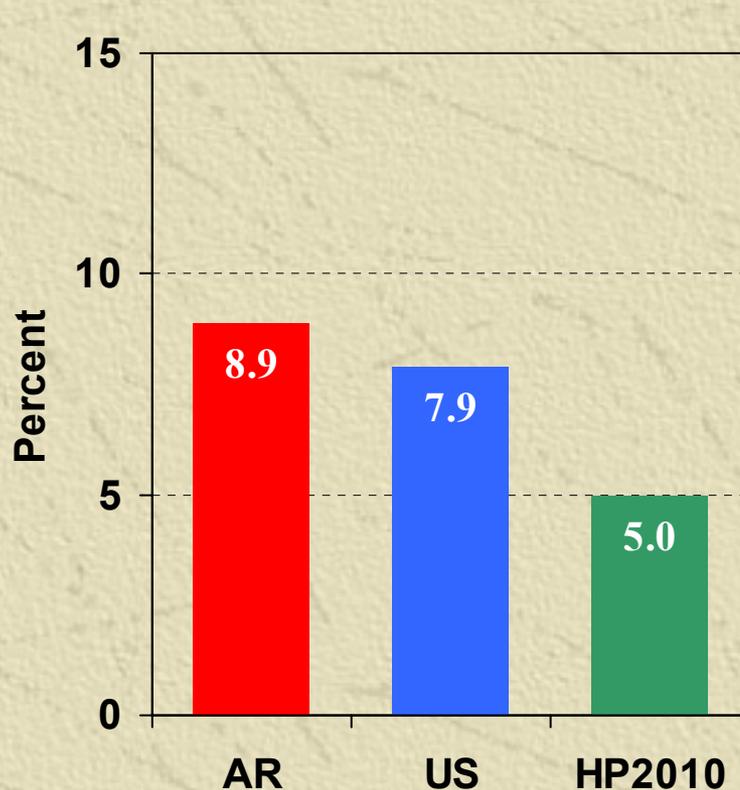


Barriers to early and adequate prenatal care include:

- ✦ Lack of health insurance, transportation or child care;
- ✦ Inconvenient health care provider service hours;
- ✦ Unplanned pregnancy;
- ✦ Cultural and personal factors

# Perinatal Health: Low Birth Weight

Table Percent babies born Low birth weight (<2,500g): AR vs. US 2003

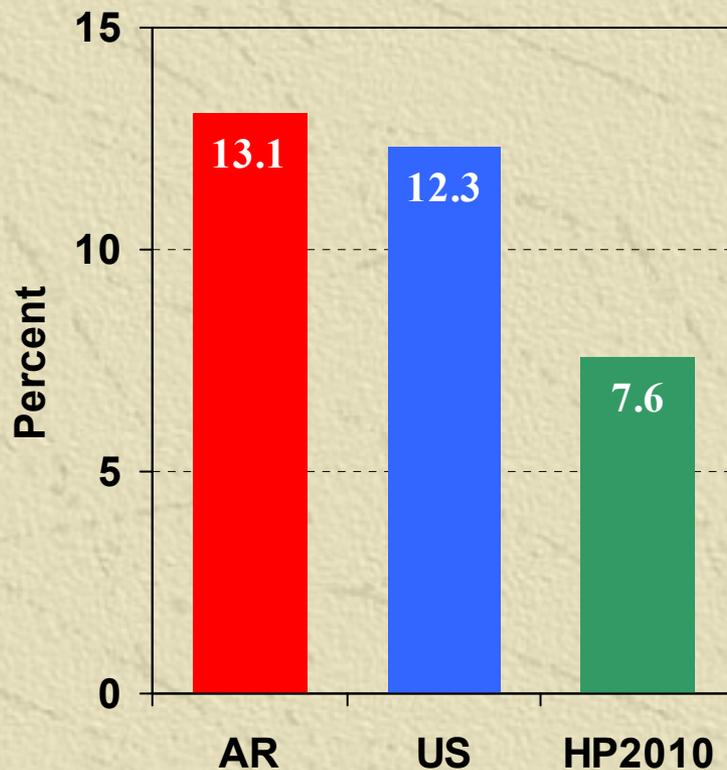


Major risk factors for LBW include:

- ✦ Multiple birth;
- ✦ Preterm delivery; Smoking;
- ✦ Inadequate maternal nutrition;
- ✦ Maternal age extremes;
- ✦ Short inter-pregnancy interval

# Perinatal Health: Preterm Births

Table Percent babies born preterm (<37 weeks of gestational age): AR vs. US 2003

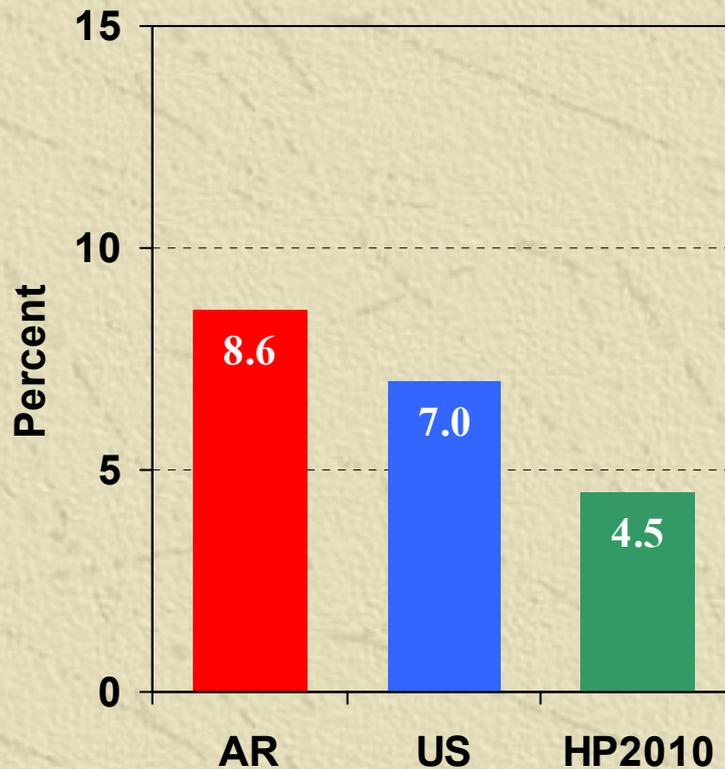


Major risk factors for preterm birth include:

- ✦ Multiple birth;
- ✦ History or preterm delivery;
- ✦ Stress;
- ✦ Infection;
- ✦ Bleeding;
- ✦ Smoking ;
- ✦ Illicit drugs;
- ✦ Maternal age extremes

# Perinatal Health: Infant Mortality

Table Infant mortality rate: AR vs. US, 2002



Major contributors to infant mortality are:

- ✦ Birth defects
- ✦ Prematurity/LBW;
- ✦ Sudden infant death syndrome;
- ✦ Respiratory distress syndrome

# Feto-Infant Mortality-Provisional data

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	Number	Mortality Rate
Fetal Deaths		
Neonatal Deaths	199/37,187	5.4 per 1,000
Perinatal Deaths	317	9.7
Post-neonatal Deaths	124/37,187	3.3
Infant Mortality	323/37,187	8.7
Ratio of Black IMR/White IMR	13.6/7.7	1.8

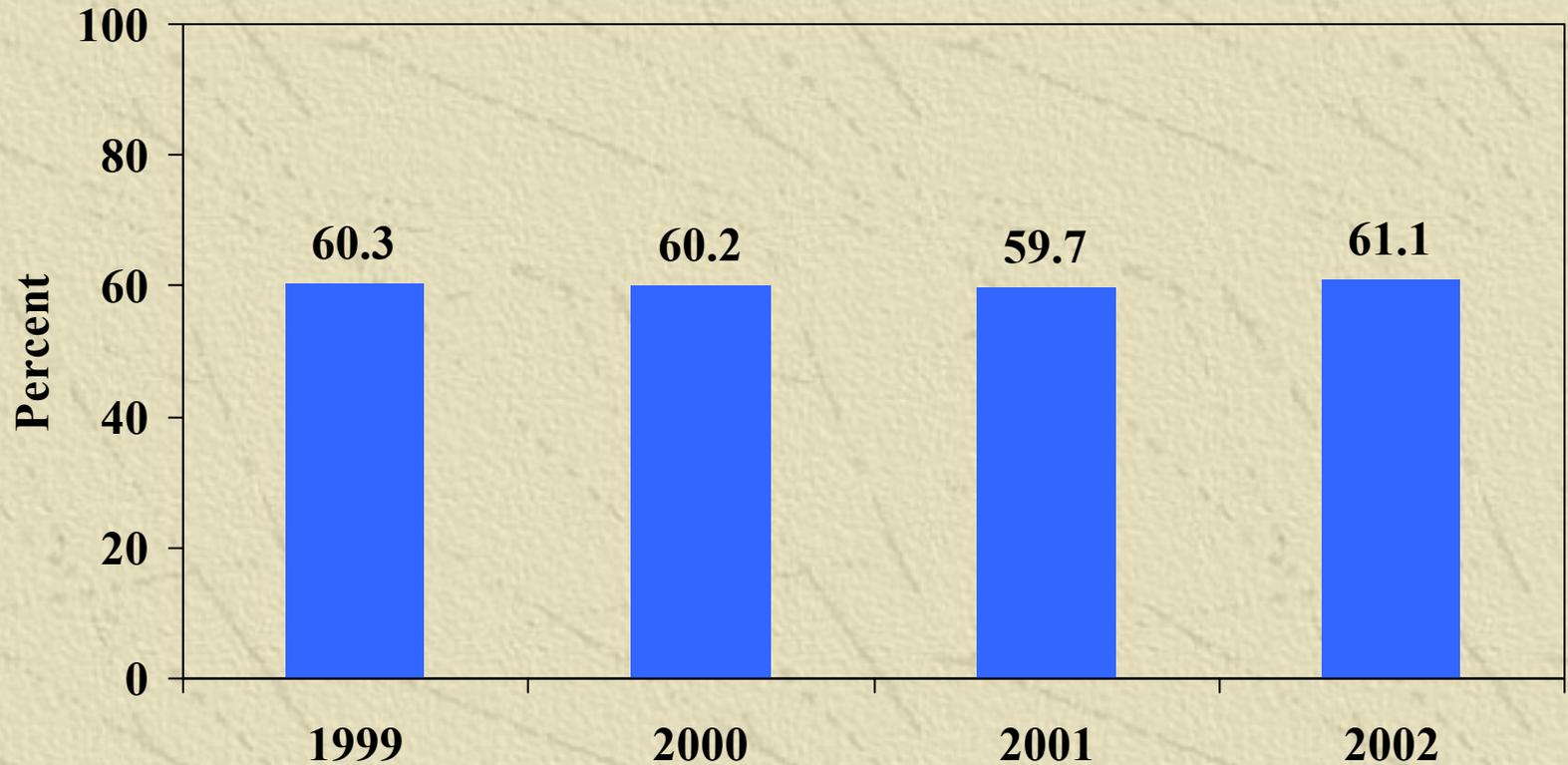
# Infant Health: Newborn Screening

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- ✦ 98.2% of newborns in 2003 who are screened and confirmed with conditions mandated by newborn screening programs received appropriate follow up
- ✦ 97.5% of newborns have been screened for hearing before hospital discharge

# Infant Health: Breastfeeding

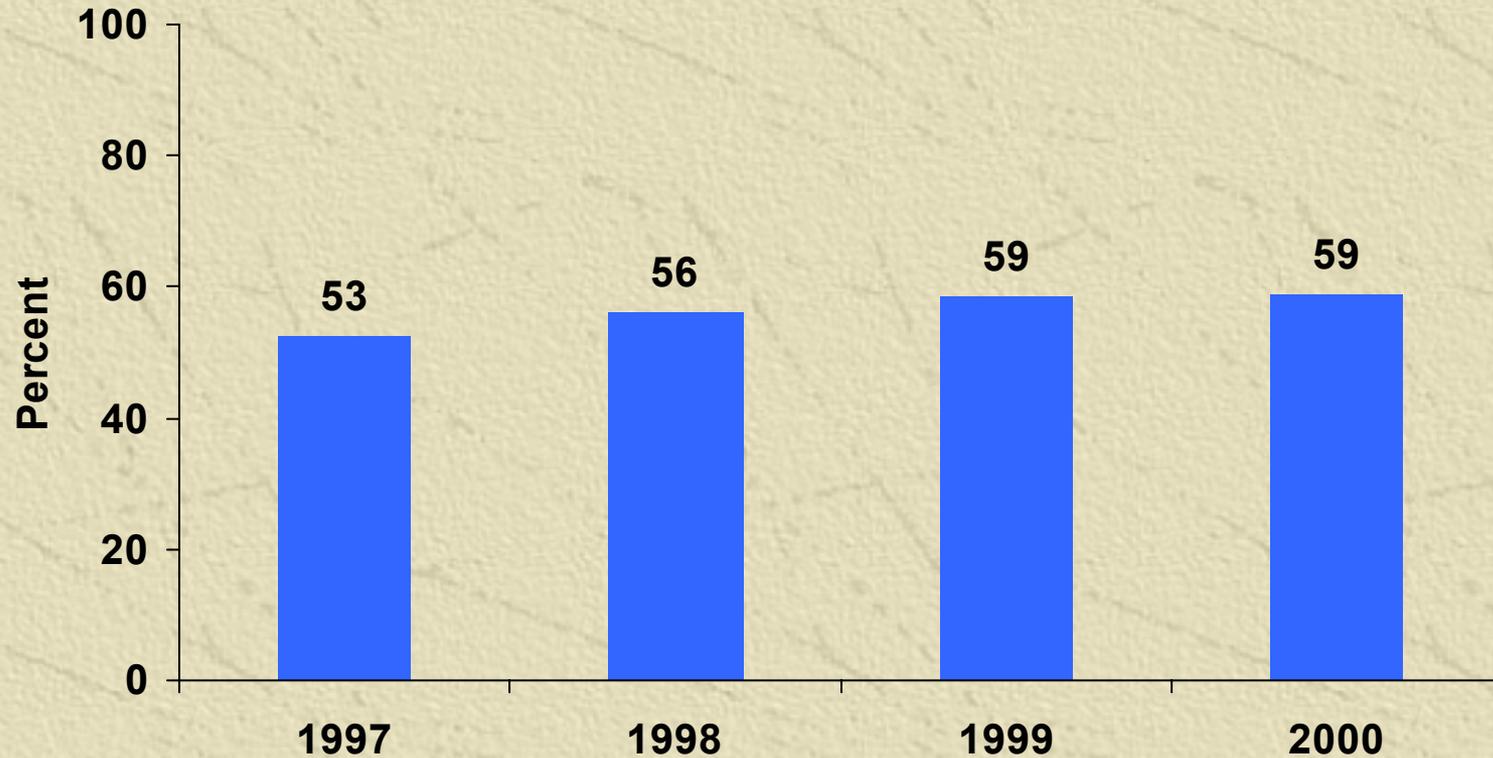
Figure Percent Mothers who Breastfeed their infants at hospital discharge



Data Source: Arkansas Birth Certificates

# Infant Health: Breastfeeding

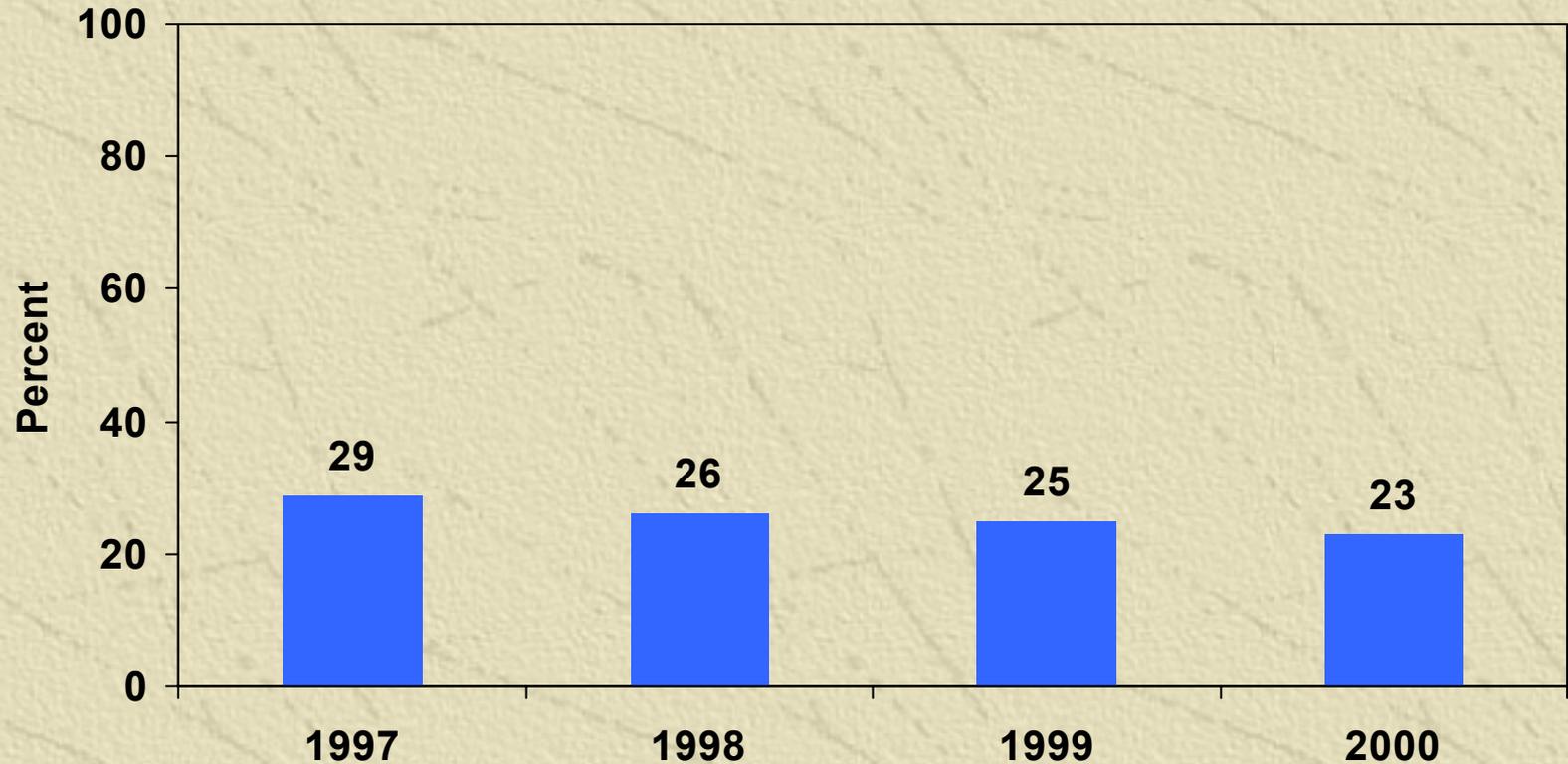
**Figure Prevalence of Breastfeeding Initiation, Arkansas PRAMS, 1997-2001**



HP2010 objective: 75%, breastfeed babies in the early postpartum period

# Infant Health: Sleeping Position

Figure Percent Infants Sleeping on Stomach: Arkansas PRAMS, 1997-2001



# Child & Adolescent Health

- ✦ Overview
- ✦ Mortality
- ✦ Teenage Childbearing
- ✦ Teen Sexual Behavior
- ✦ Teen Risk Behavior
- ✦ Overweight & Physical Activity
- ✦ Injury

# Child & Adolescent Health 2003 Overview

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- ✦ 17% (65,789) children through age 18 and below 200 percent of federal poverty level enrolled in Arkids First child health insurance program
- ✦ 88% (30,806) Medicaid-eligible children have received a service paid by the Medicaid Program
- ✦ The estimated vaccination coverage was 69% among children 19-35 months of age
- ✦ 15% of third grade children had received protective sealants on at least one permanent molar tooth.
- ✦ 11% children who receive WIC services were overweight; 22% of public school students were overweight; 18% public school students were at risk of overweight
- ✦ 5,684 (15%) babies were born to teen mothers, 4,233 (74%) of them were unmarried
- ✦ 56% high school students have engaged in sexual intercourse
- ✦ 139 children aged 1-14 years died, child mortality rate for this age group is 26 per 100,000
- ✦ 11 children of 15-19 years committed suicide, resulting a suicide death rate of 5.6 per 100,000

# Mortality of Infants and Children

**Table 5 leading causes of death by age for Infants & children aged 0-24 years:  
Arkansas, 2002**

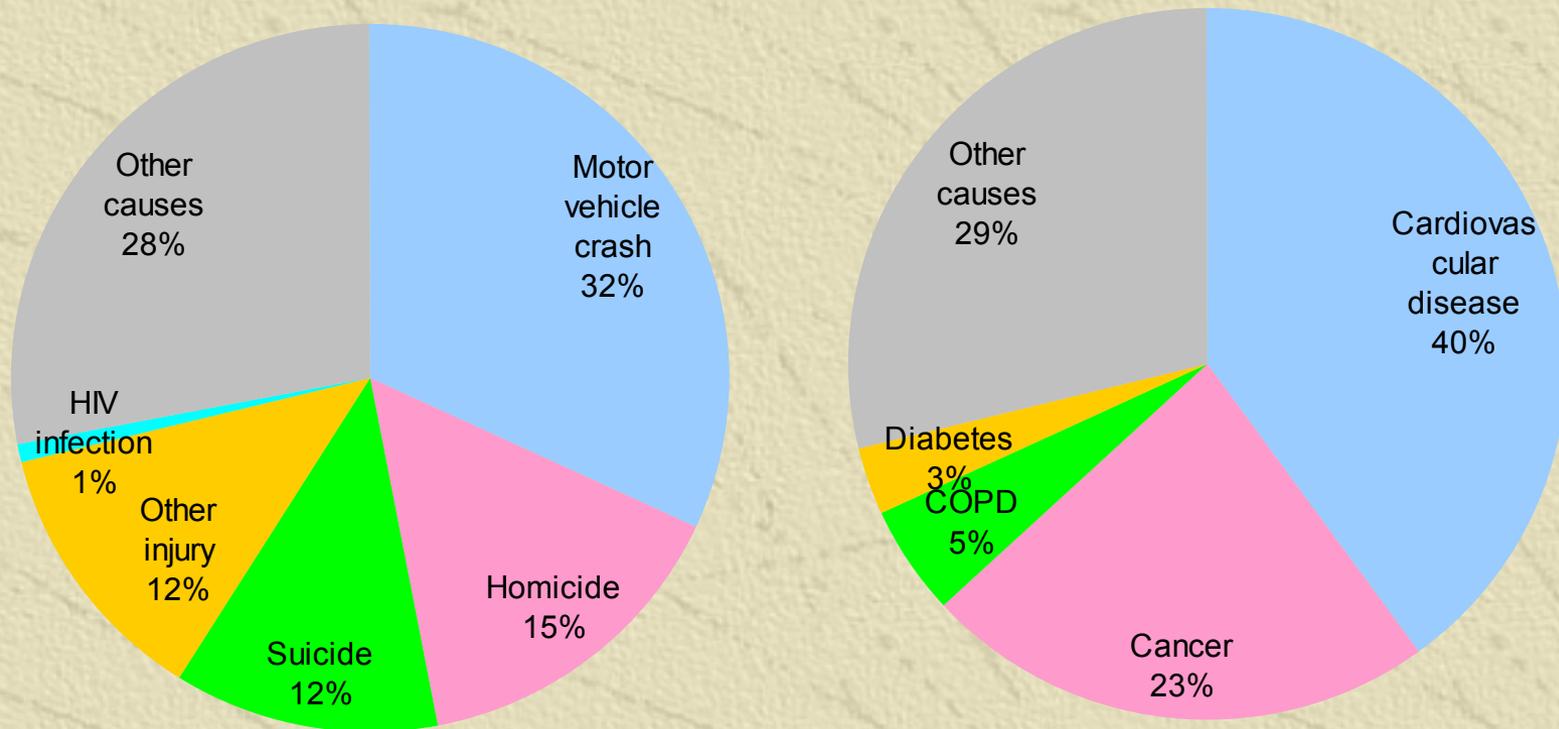
Rank	<1	1-4	5-9	10-14	15-19	20-24
<b>1</b>	Congenital Anomalies (n=64)	Unintentional Injury (n=25)	Unintentional Injury (n=13)	Unintentional Injury (n=25)	Unintentional Injury (n=106)	Unintentional Injury (n=127)
<b>3</b>	Short Gestation (n=29)	Homicide (n=6)	Malignant Neoplasms (n=8)	Malignant Neoplasms (n=7)	Suicide (n=19)	Suicide (n=38)
<b>3</b>	Maternal Pregnancy Comp. (n=21)	Malignant Neoplasms (n=4)	Congenital Anomalies (n=3)	Congenital Anomalies (n=3)	Homicide (n=17)	Homicide (n=34)
<b>4</b>	SIDS (n=21)	Heart Disease (n=3)	Influenza & Pneumonia (n=2)	Three Tied (n=2)	Malignant Neoplasms (n=9)	Three Tied (n=5)
<b>5</b>	Unintentional Injury (n=19)	Two Tied (n=2)	Four Tied (n=2)	Three Tied (n=2)	Heart Disease (n=6)	Three Tied (n=5)
<b>All Deaths</b>	<b>312</b>	<b>59</b>	<b>38</b>	<b>59</b>	<b>184</b>	<b>268</b>

**SIDS:** Sudden Infant Death Syndrome

**Data Source:** National Center for Health Statistics (NCHS)

# Mortality of Youth

**Figure Leading causes of death in youth aged 10-24 years, compared to adults aged 25 years and older: US, 2001**



COPD: Chronic Obstructive Pulmonary Disease

Data Source: National Center for Health Statistics Vital Record System

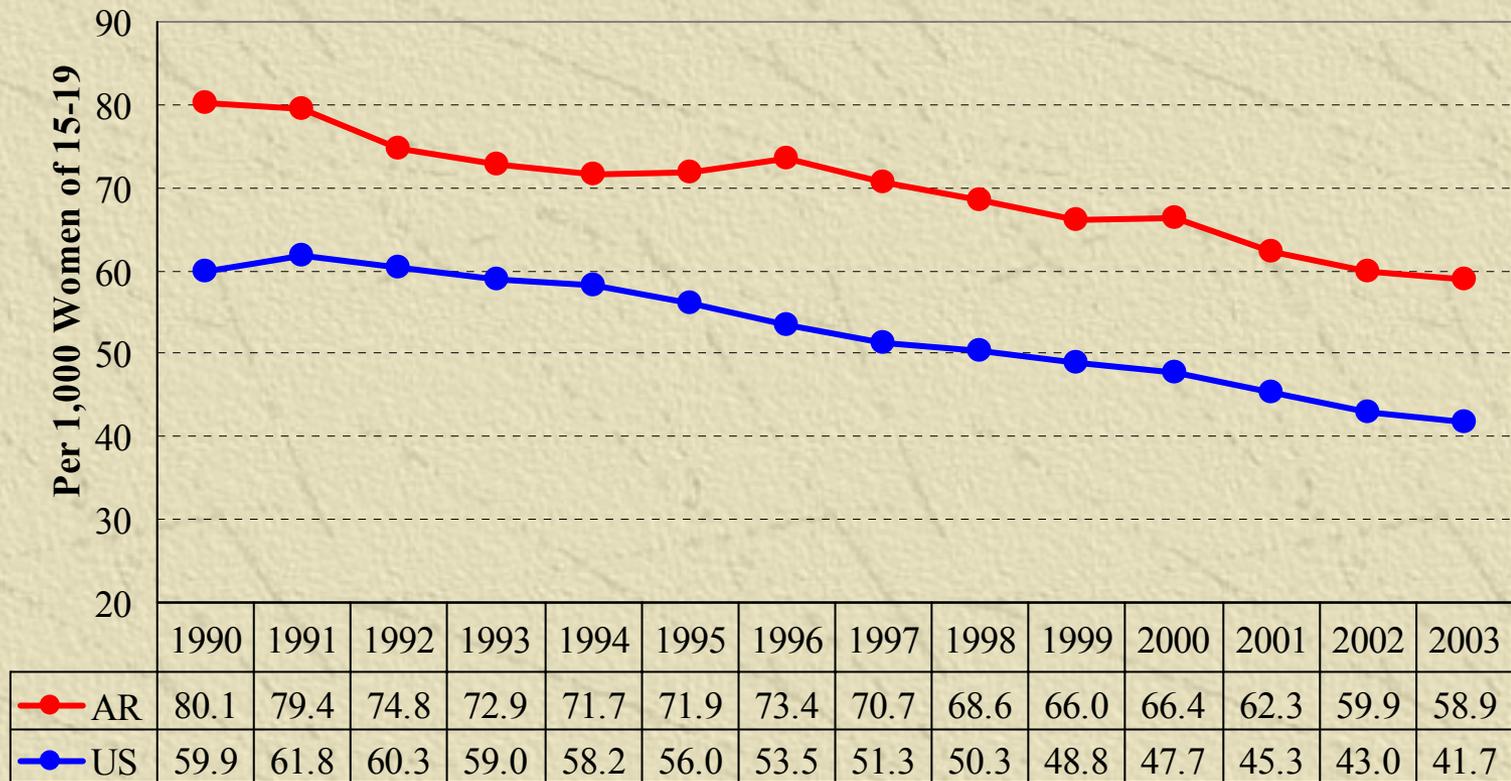
# Teenage Childbearing: Number of Births

**Table Number of Births to Teen Mothers by Age, AR 2003**

<b>Age of Mother</b>	<b>Births</b>		<b>Percent Change</b>
	<b>2002</b>	<b>2003</b>	
Under 15	108	109	+0.01%
15-17	1,790	1,724	-3.7%
18-19	3,894	3,851	-1.1%
Under 20 (Total)	5,792	5,684	-1.9%

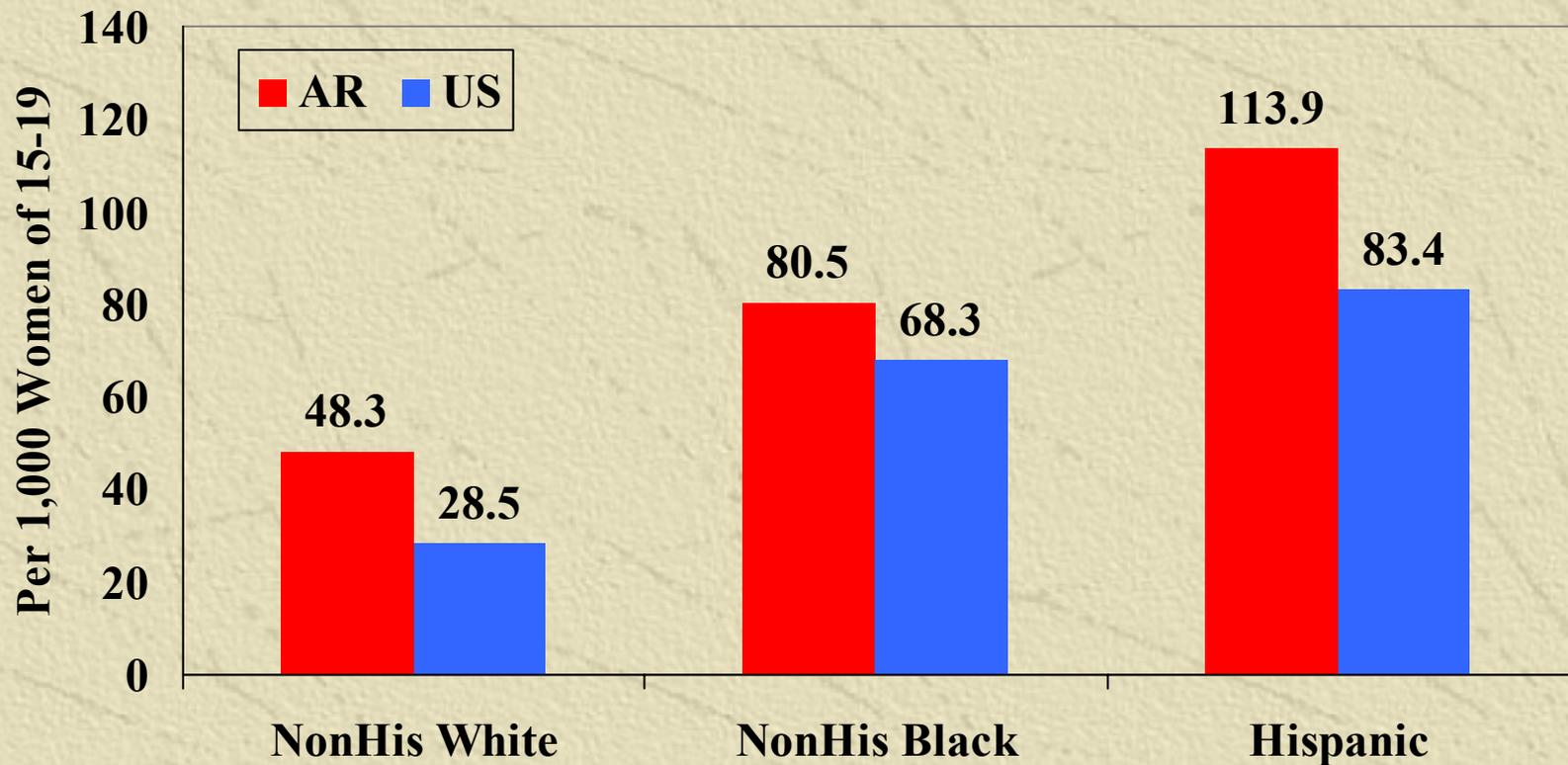
# Teenage Childbearing: Trend

Figure Teen (15-19) Birth Rate: AR vs. US, 1990-2003



# Teenage Childbearing: by Race/Ethnicity

Figure Teen (15-19) Birth Rates by Race/Ethnicity; AR vs. US 2002



# Teenage Childbearing: Other Characteristics

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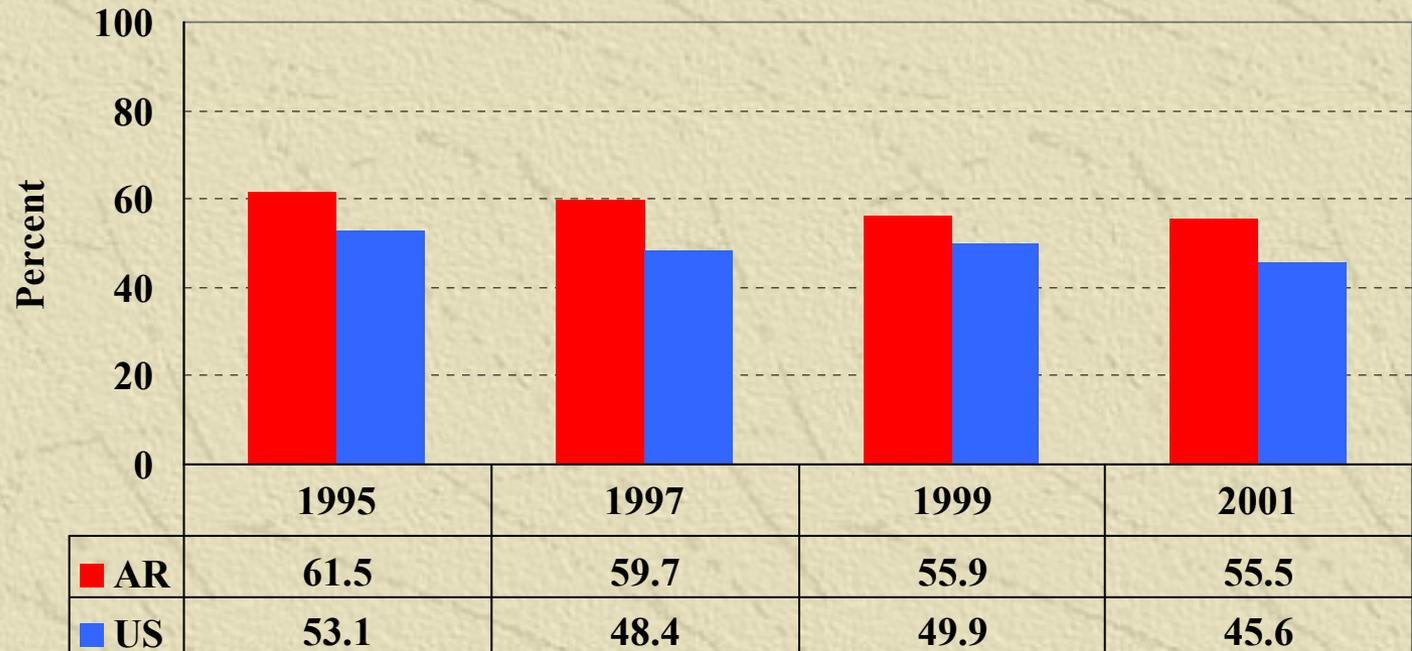
**Table Teen birth characteristics: AR vs. US, 2001**

<b>Characteristics</b>	<b>AR</b>	<b>US</b>
Percent of all births to mothers under 20	16%	11%
Of all births to mothers under 20, percent Non-Marital	72%	79%
Of all births to teens (15-19), percent LBW	10%	9%
Of all births to teens (15-19), percent Repeated Births	24%	21%
Percent of teen mothers (15-19) who used tobacco during pregnancy	22%	18%

# Teen Sexual Behavior: Sexually Experienced

Percentage of high school students who ever had sexual intercourse

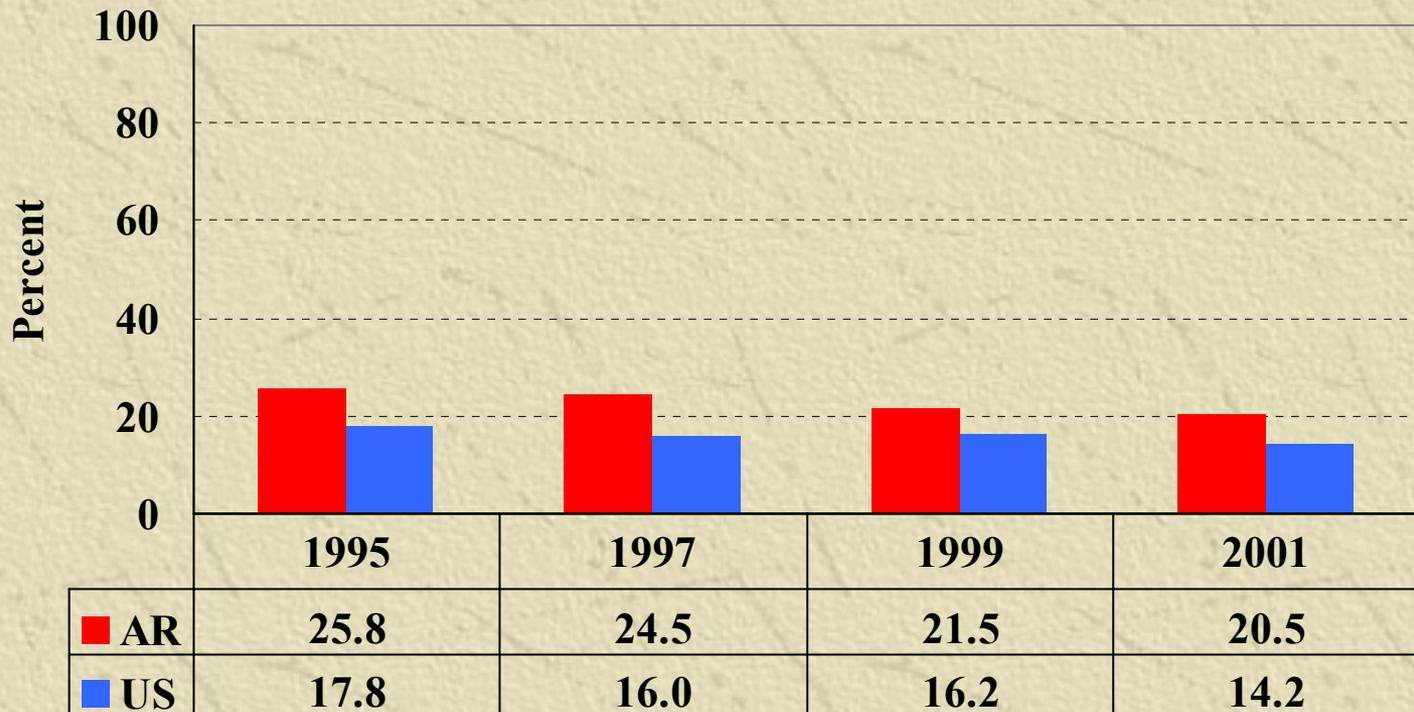
AR vs. US, 1995-2001



Data Source: Youth Behavioral Survey System (YRBSS)

# Teen Sexual Behavior: High Risk Behavior

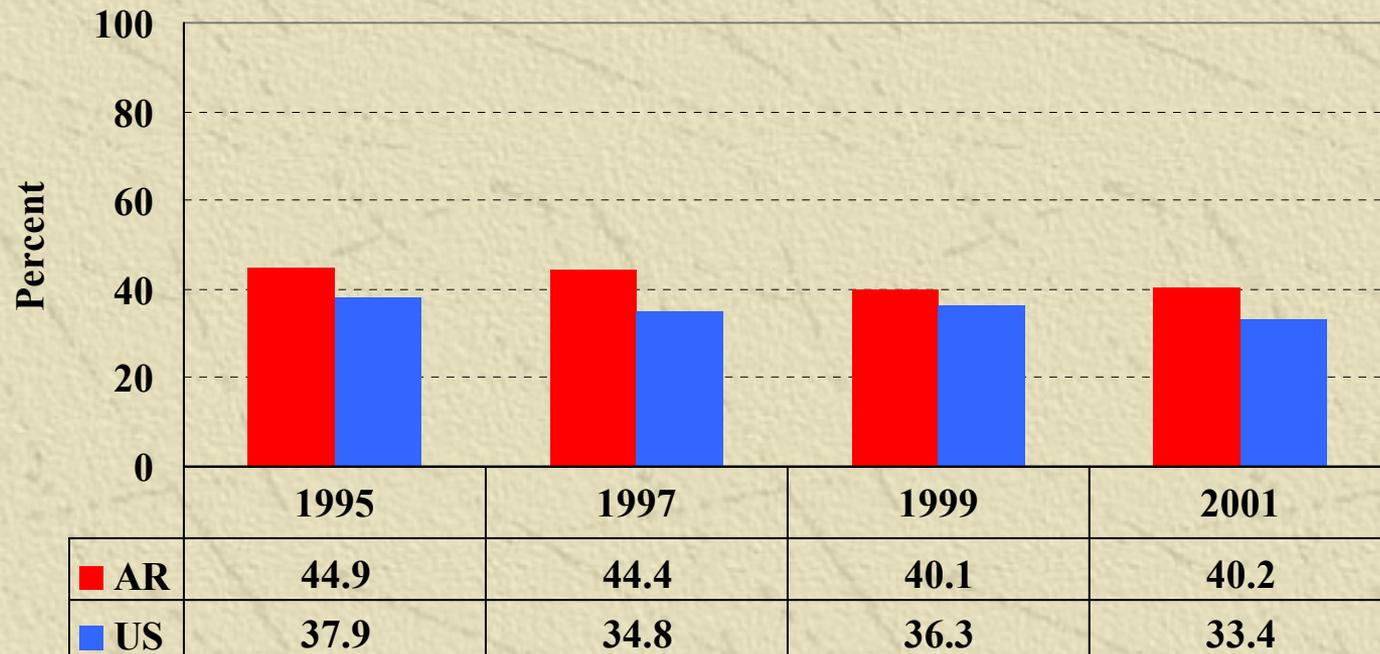
Table Percent high school students who ever had four or more sex partners, AR vs. US 1995-2001



Data Source: Youth Behavioral Survey System (YRBSS)

# Teen Sexual Behavior: Sexually Active

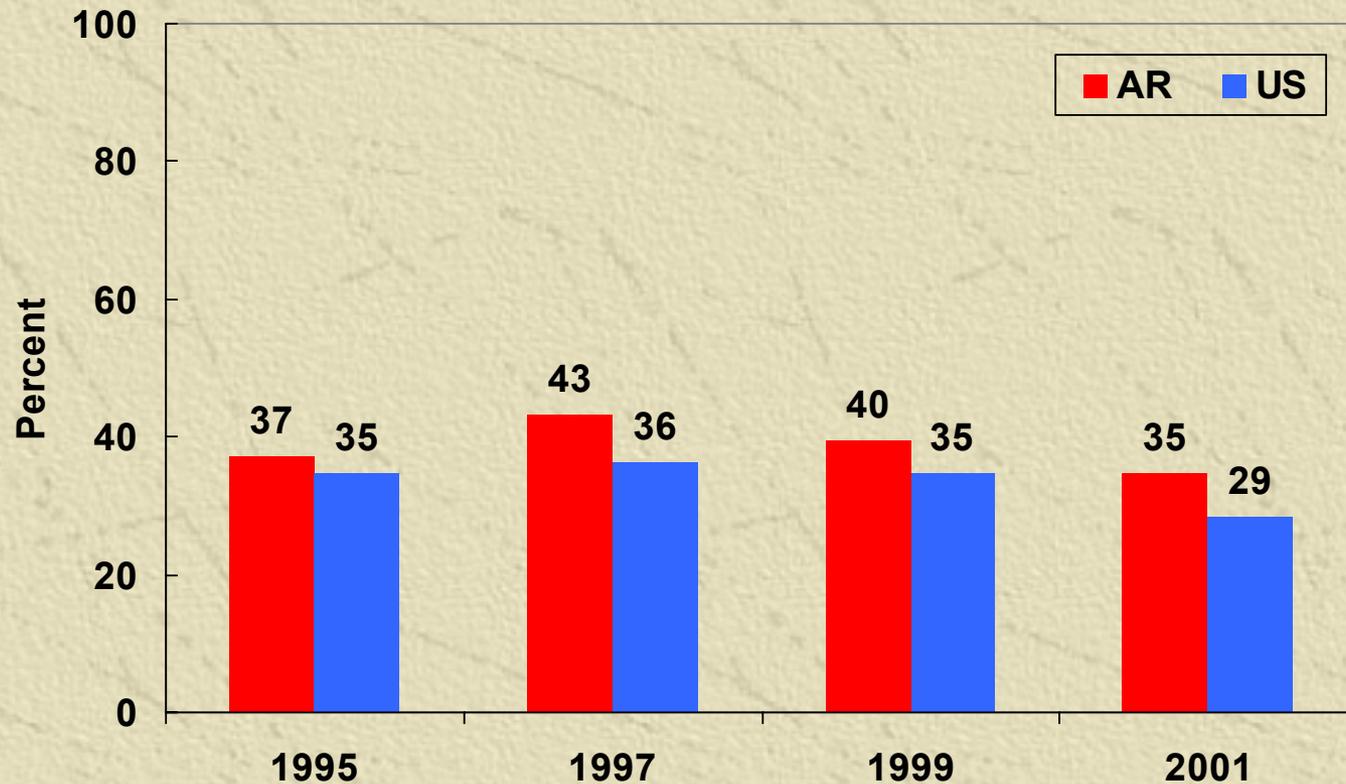
**Table Percent high school students who had sexual intercourse during the past three months: AR vs. US 1995-2001**



Data Source: Youth Behavioral Survey System (YRBSS)

# Teen Risk Behavior: Tobacco Use

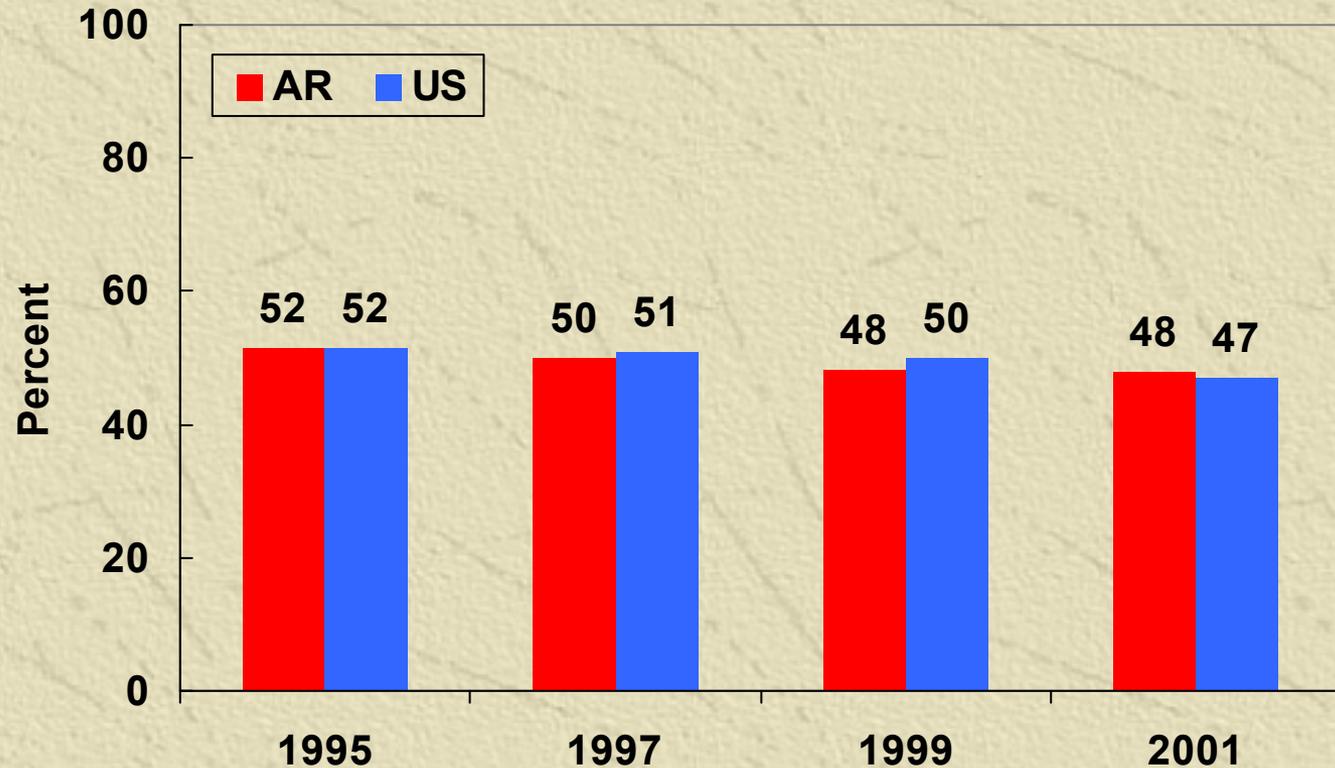
Figure Percent high school students who smoked cigarettes during the past month: AR vs. US 1995-2001



Data Source: Youth Behavioral Survey System (YRBSS)

# Teen Risk Behavior: Alcohol Consumption

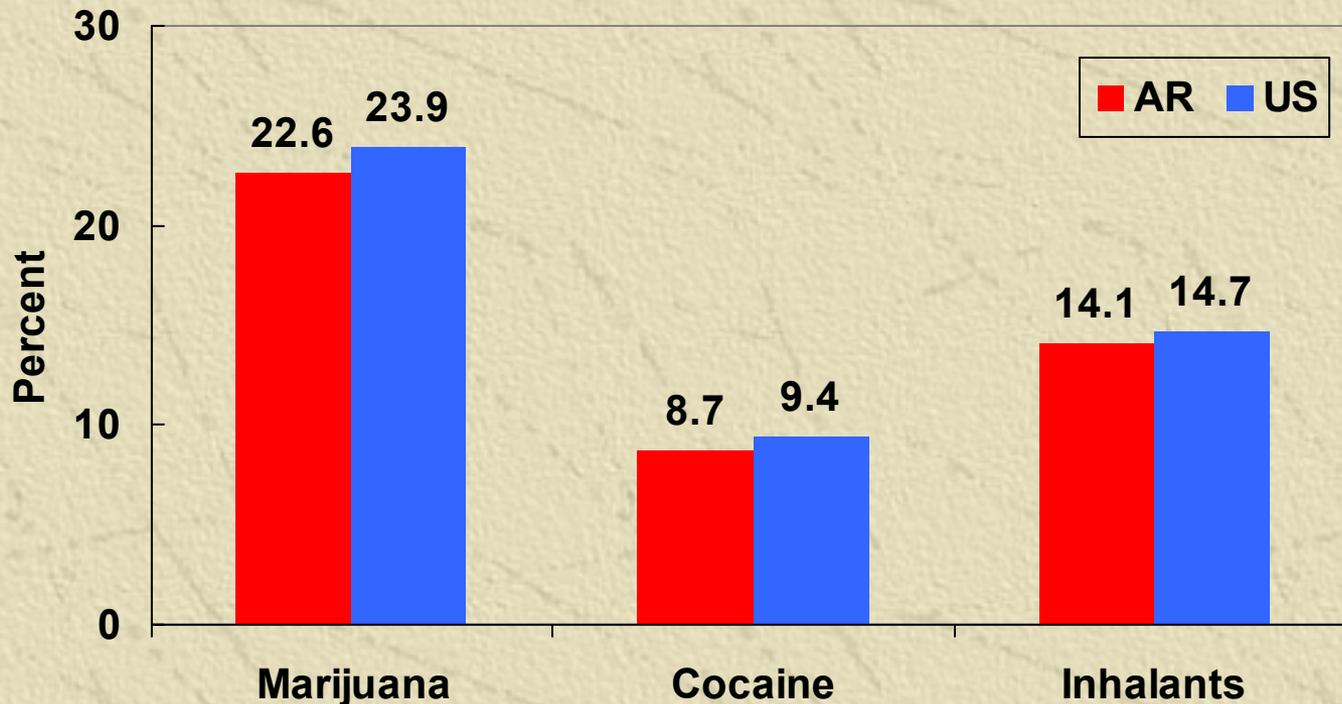
Figure Percent high school students who drank alcohol during the past month:  
AR vs. US 1995-2001



Data Source: Youth Behavioral Survey System (YRBSS)

# Teen Risk Behavior: Substance Abuse

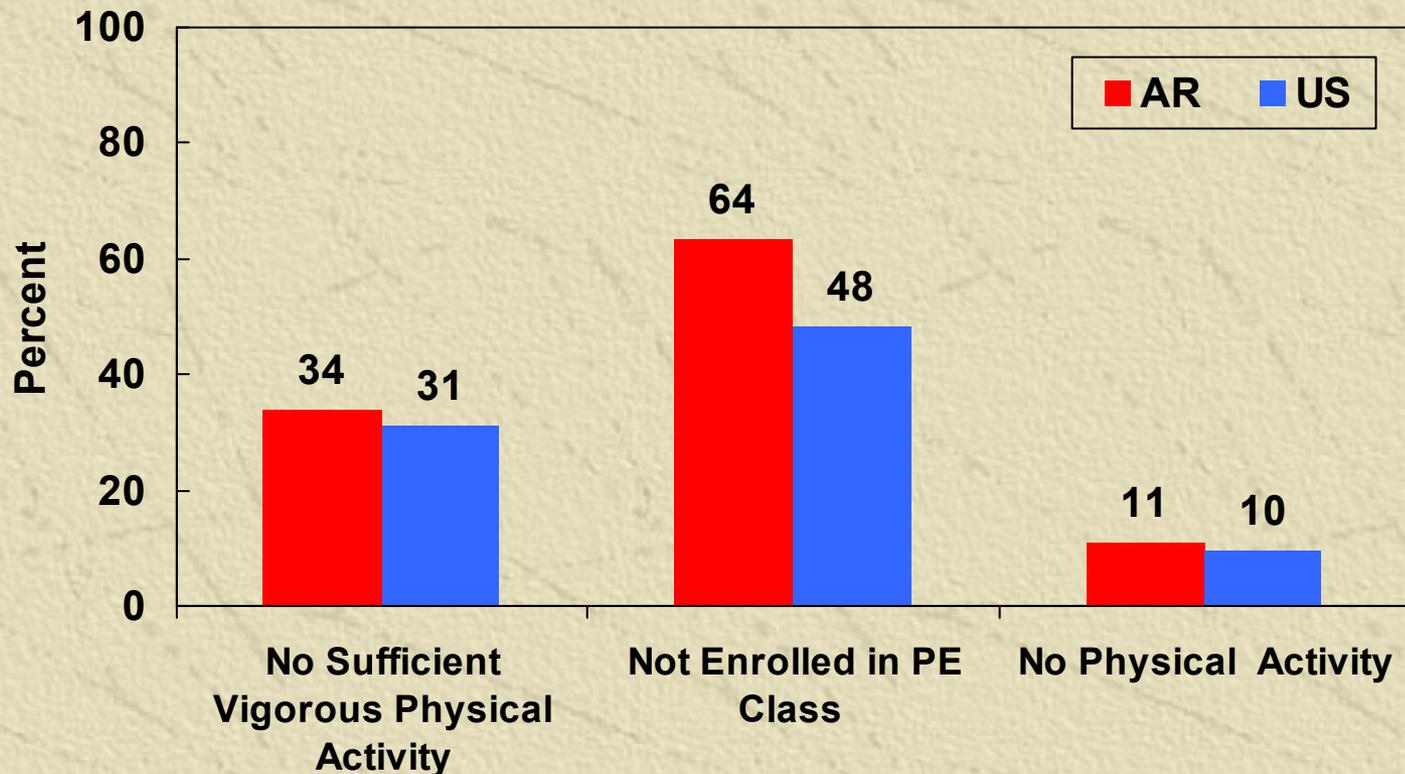
Percentage of high school students who used marijuana during the past month, ever used cocaine, ever used inhalants: AR vs. US 2001



Data Source: Youth Behavioral Survey System (YRBSS)

# Child Physical Activity

Figure Percent high school students who did not participate sufficient vigorous physical activity, were not enrolled in PE class, or did not participate any physical activity: AR vs. US, 2001

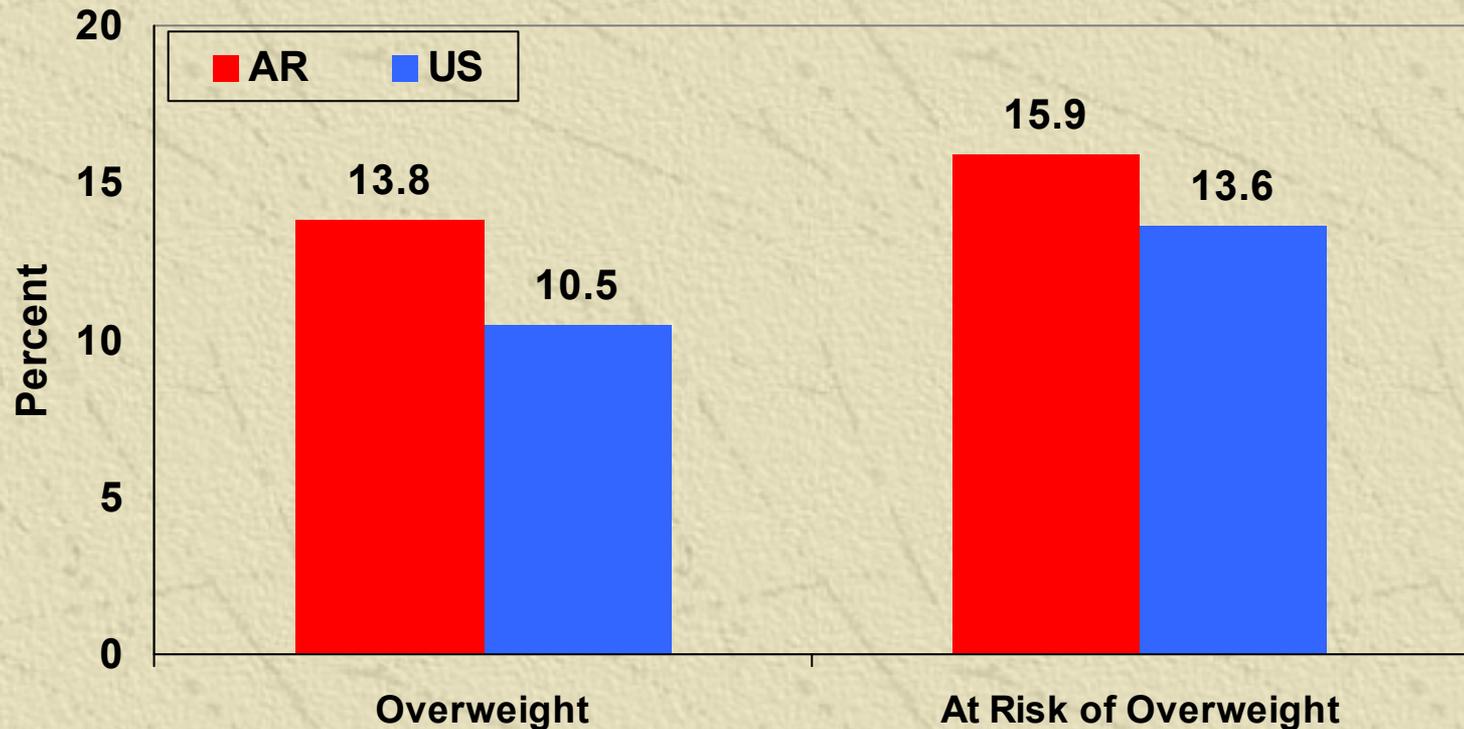


No vigorous physical activity: did not participate in vigorous physical activity for  $\geq 20$  mins on  $\geq 3$  of the past 7 days(Data)

Source: Youth Behavioral Survey System (YRBSS)

# Children and Weight

Figure Percent high school students who are overweight, or at risk of overweight: AR vs. US, 2001



•Did not participate in vigorous physical activity for  $\geq 20$  mins on  $\geq 3$  of the past 7 days

Source: Youth Behavioral Survey System (YRBSS)

# Injury: Overview

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- ✦ In 2002, there were 463 injury deaths among Arkansas residents aged 0-24.
- ✦ 315 were due to unintentional injury, 217 were due to motor vehicle crashes, which are the leading cause of unintentional injury deaths in children
- ✦ Adolescent (15-19) suicide death rate was 5.6 per 100,000

# Children's Health: Injury Mortality

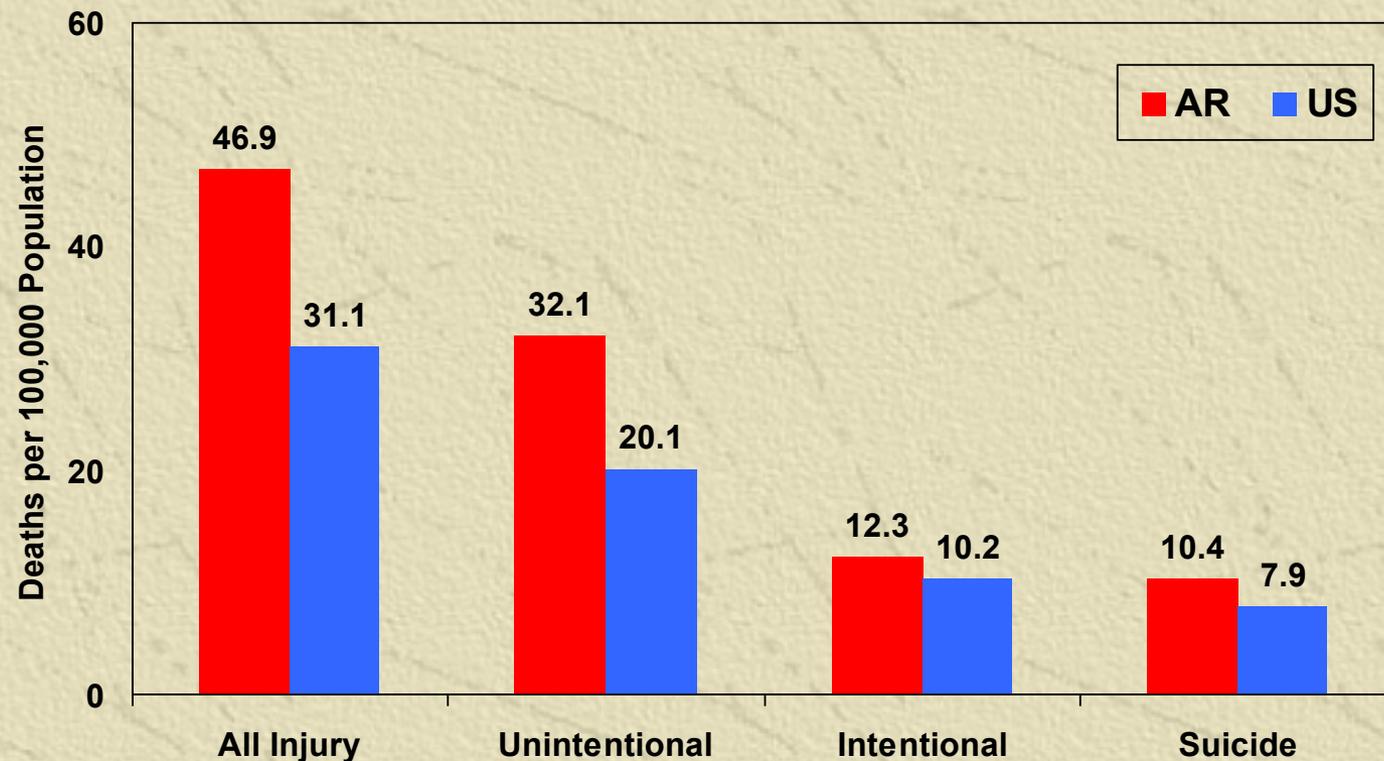
**Table 5 leading mechanisms of Injury deaths for children aged 0-24 years: Arkansas, 1999-2002**

Rank	<1	1-4	5-9	10-14	15-19	20-24
<b>1</b>	Unintentional Suffocation (n=37)	Unintentional MV Traffic (n=52)	Unintentional MV Traffic (n=38)	Unintentional MV Traffic (n=66)	Unintentional MV Traffic (n=326)	Unintentional MV Traffic (n=328)
<b>3</b>	Unintentional MV Traffic (n=16)	Unintentional Fire/Burn (n=26)	Unintentional Fire/Burn (n=14)	Unintentional Fire/Burn (n=14)	Homicide Firearm (n=53)	Homicide Firearm (n=99)
<b>3</b>	Homicide Unspecified (n=9)	Unintentional Drowning (n=22)	Unintentional Drowning (n=12)	Unintentional Drowning (n=12)	Suicide Firearm (n=50)	Suicide Firearm (n=88)
<b>4</b>	Four Tied (n=3)	Homicide Unspecified (n=16)	Unintentional Unspecified (n=4)	Homicide Firearm (n=10)	Unintentional Drowning (n=27)	Suicide Suffocation (n=26)
<b>5</b>	Four Tied (n=3)	Two Tied (n=7)	Two Tied (n=3)	Suicide Firearm (n=8)	Suicide Suffocation (n=25)	Unintentional Drowning (n=24)
<b>All Deaths</b>	<b>91</b>	<b>162</b>	<b>90</b>	<b>148</b>	<b>585</b>	<b>715</b>

**Data Source:** National Center for Health Statistics (NCHS)

# Children's Health: Injury Mortality Rate

Age-adjusted injury death rate: AR vs. US 1999-2002

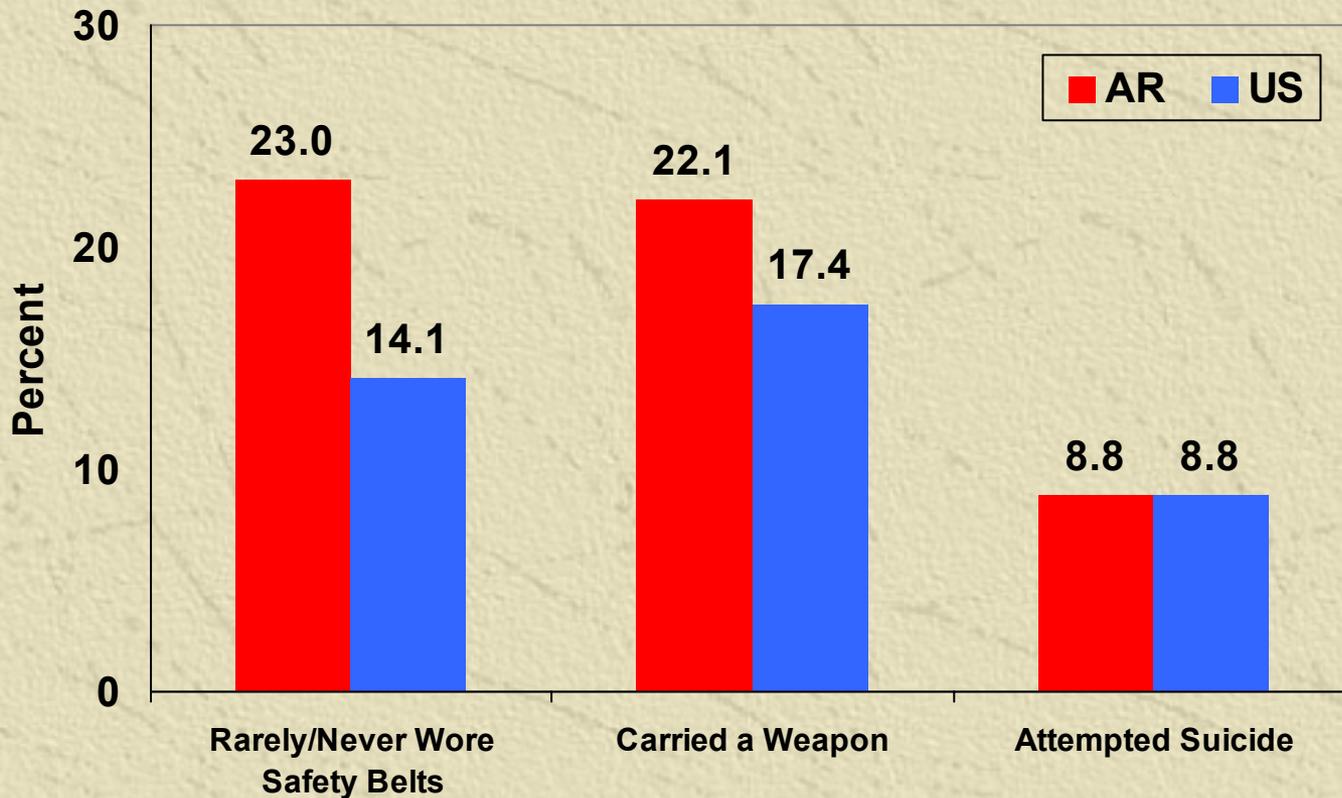


\*Suicide: for youth aged 15-19

Data Source: WISQARS, CDC

# Children's Health: Youth Risk Behaviors

Figure Percent high school students who rarely or never wore safety belts, carried a weapon during the past month, attempted suicide during the past year: AR vs. US, 2001



\* Did not participate in vigorous physical activity for  $\geq 20$  mins on  $\geq 3$  of the past 7 days

# Children with Special Health Care Needs (CSHCN)

The results from the 2001 National CSHCN Survey indicated that approximately 14% or (n=927) children ages 0-17 in Arkansas have special needs compared to the national average of 13%.

In Arkansas, males(17%) are more likely to have a special health care need than females (12%), and non-Hispanics (White, 14.7%, Black 13.7%) are more likely to have a special need than Hispanics (7.0%)

An estimated 52% of Arkansas children with special needs received care within a medical home compared to the national estimate of 53%.

In 2003, approximately n= Arkansas children were enrolled in CSHCN programs

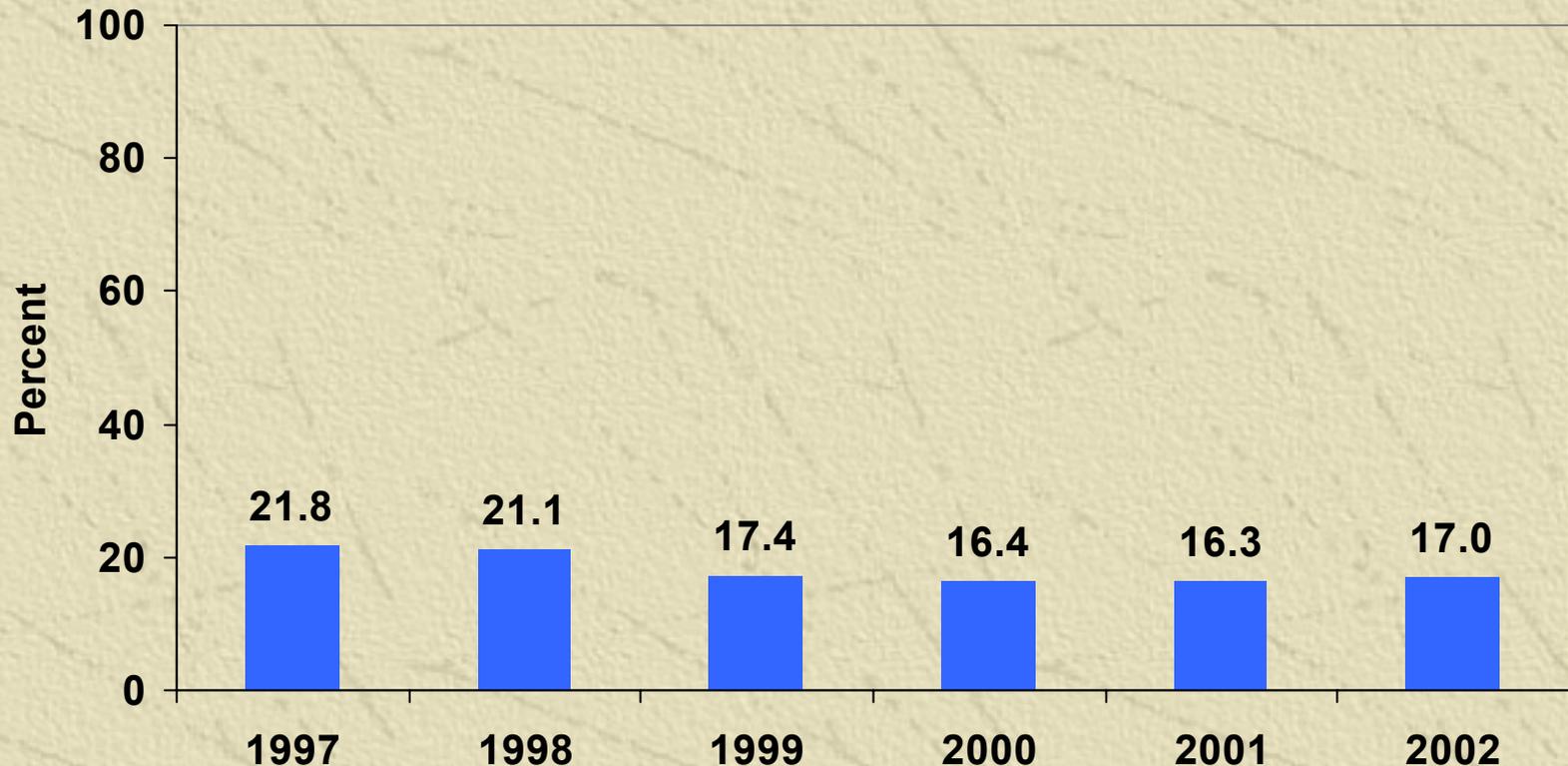
23% of children with special needs have some unmet need for specific health care services compared to the national percent of 18.

# Women's Health

- ✦ Preconception Care
- ✦ Unintended Pregnancy
- ✦ Women's Risk Behavior during Pregnancy
- ✦ Pregnancy Outcomes

# Women's Health: Pap Smear Test

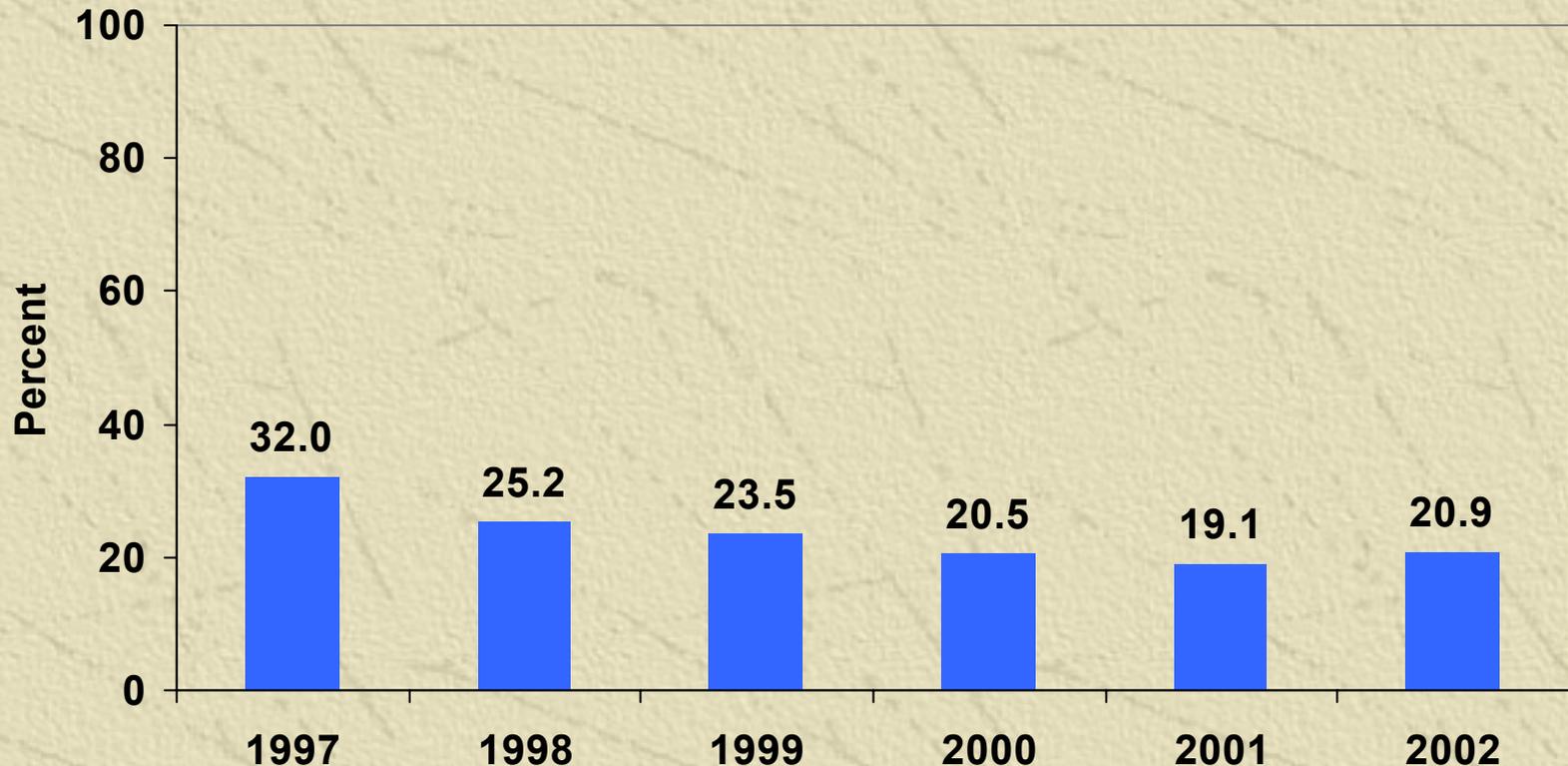
Figure Prevalence of No Pap Smear within 3 Years: Arkansas BRFSS, 1997-2002



This is the percentage of female respondents with uterine cervix, age 18 and older, who report that they did not have a pap smear within the last three years.

# Women's Health: Breast Care

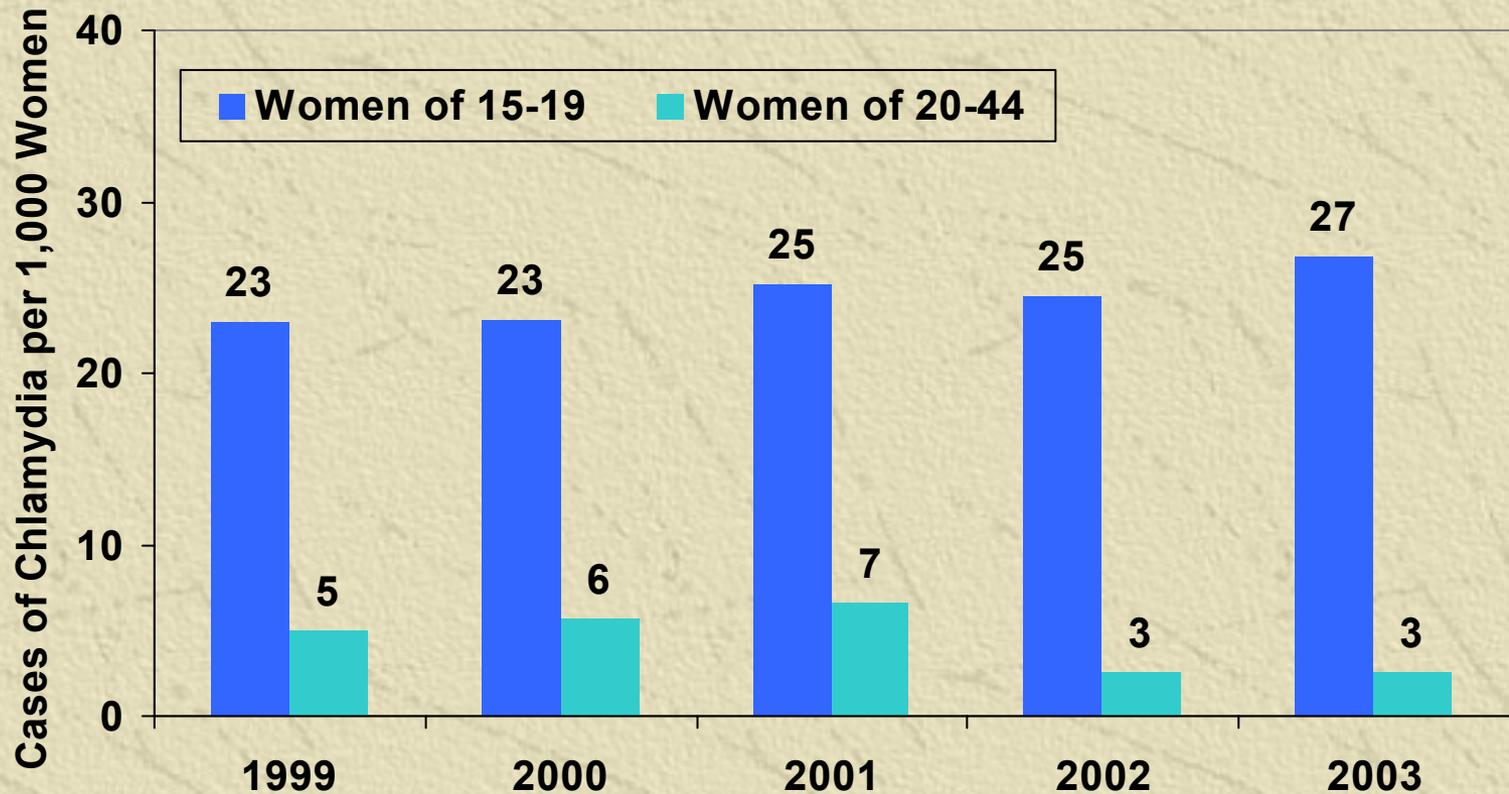
Prevalence of No Mammogram & Breast Exam: Arkansas BRFSS, 1997-2002



This is the percentage of female respondents, age 40 and older, who report that they have never had a mammogram and a breast exam.

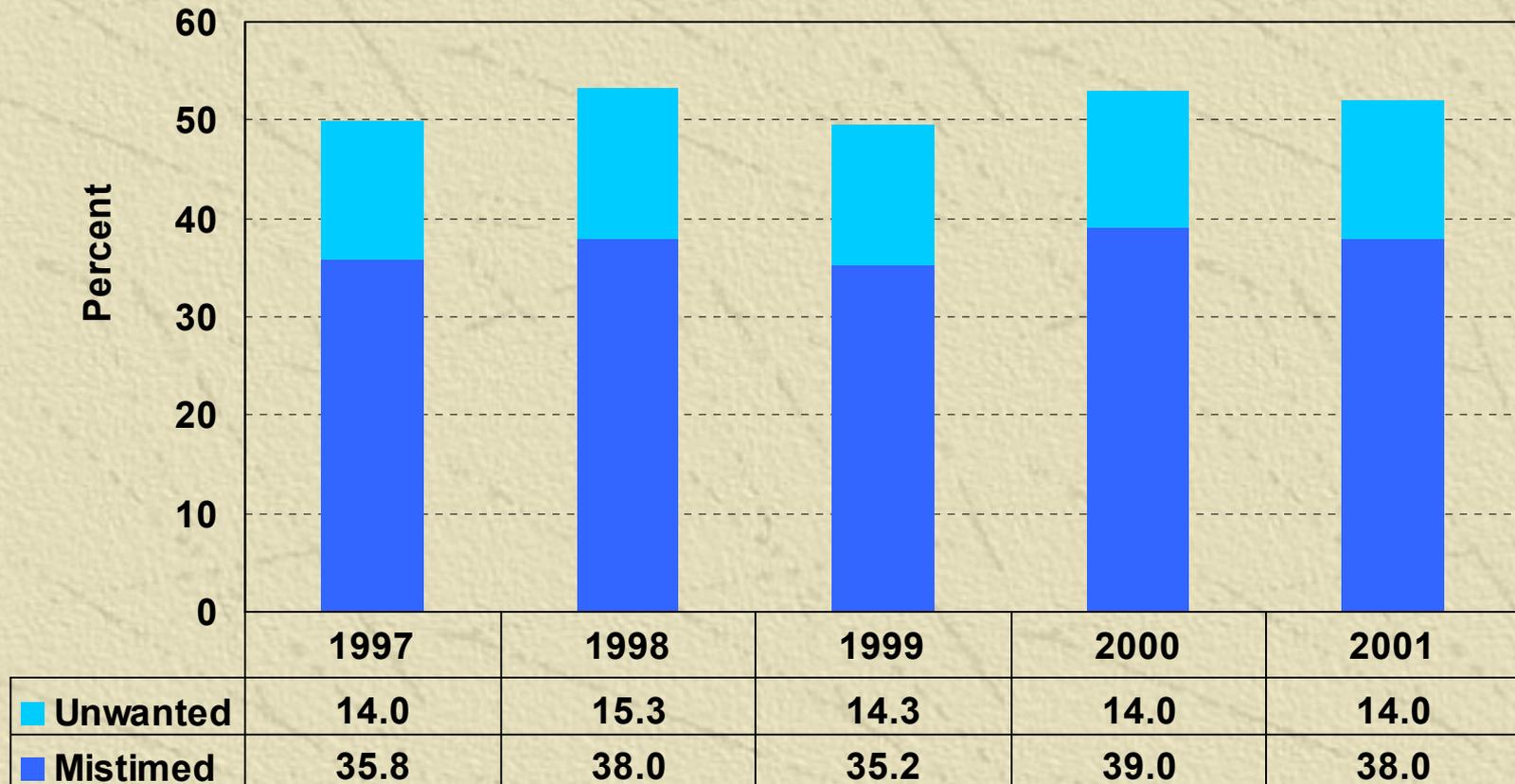
# Women's Health: STD Surveillance

Figure Reported Cases of Chlamydia among Women, Arkansas 2003



# Women's Health: Unintended Pregnancy

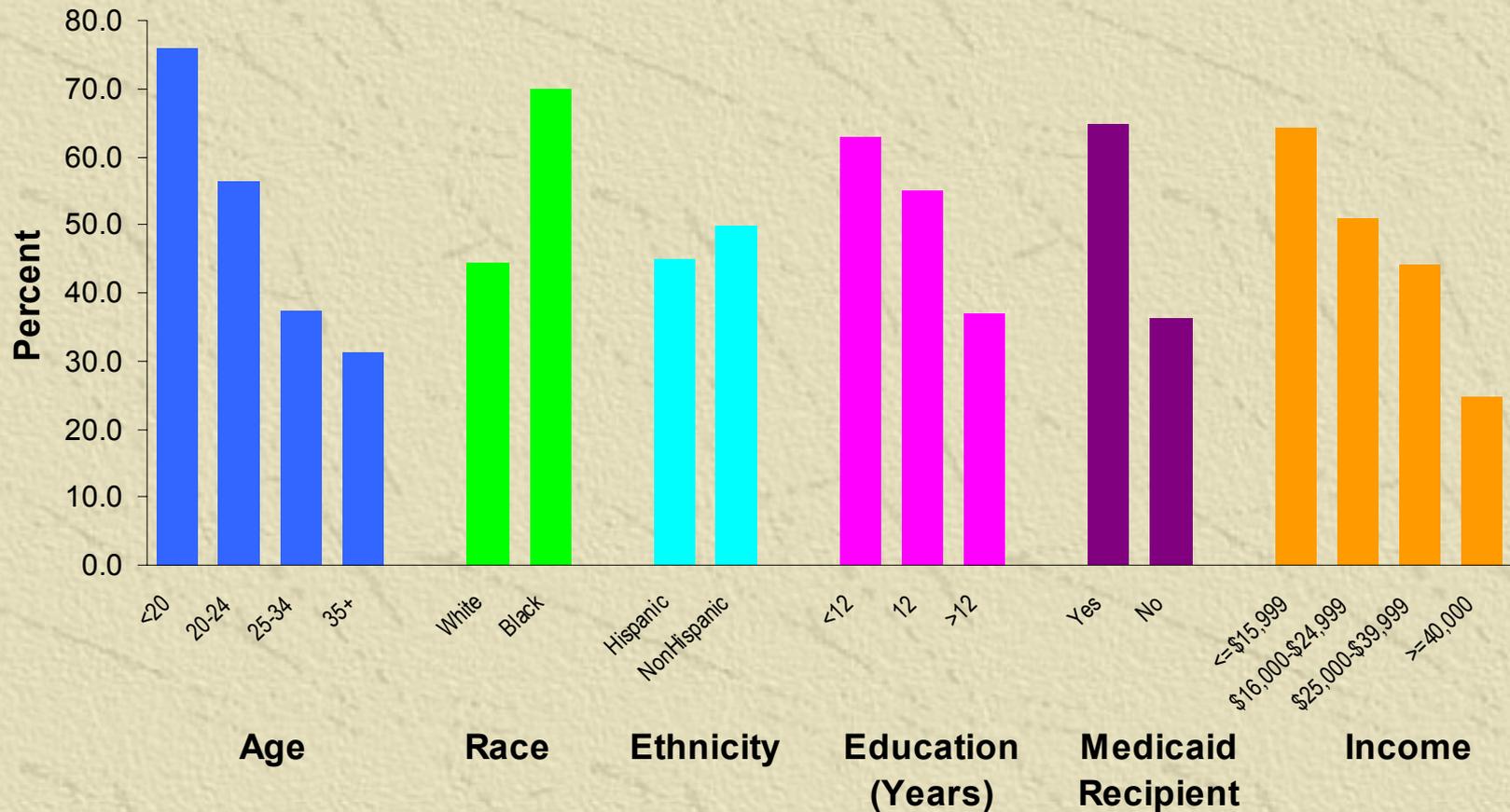
**Figure Prevalence of Unintended Pregnancy among Women Having a Live Birth: Arkansas PRAMS, 1997-2001**



Note: HP 2010 objective: decrease the proportion of unintended pregnancies to  $\leq 30\%$

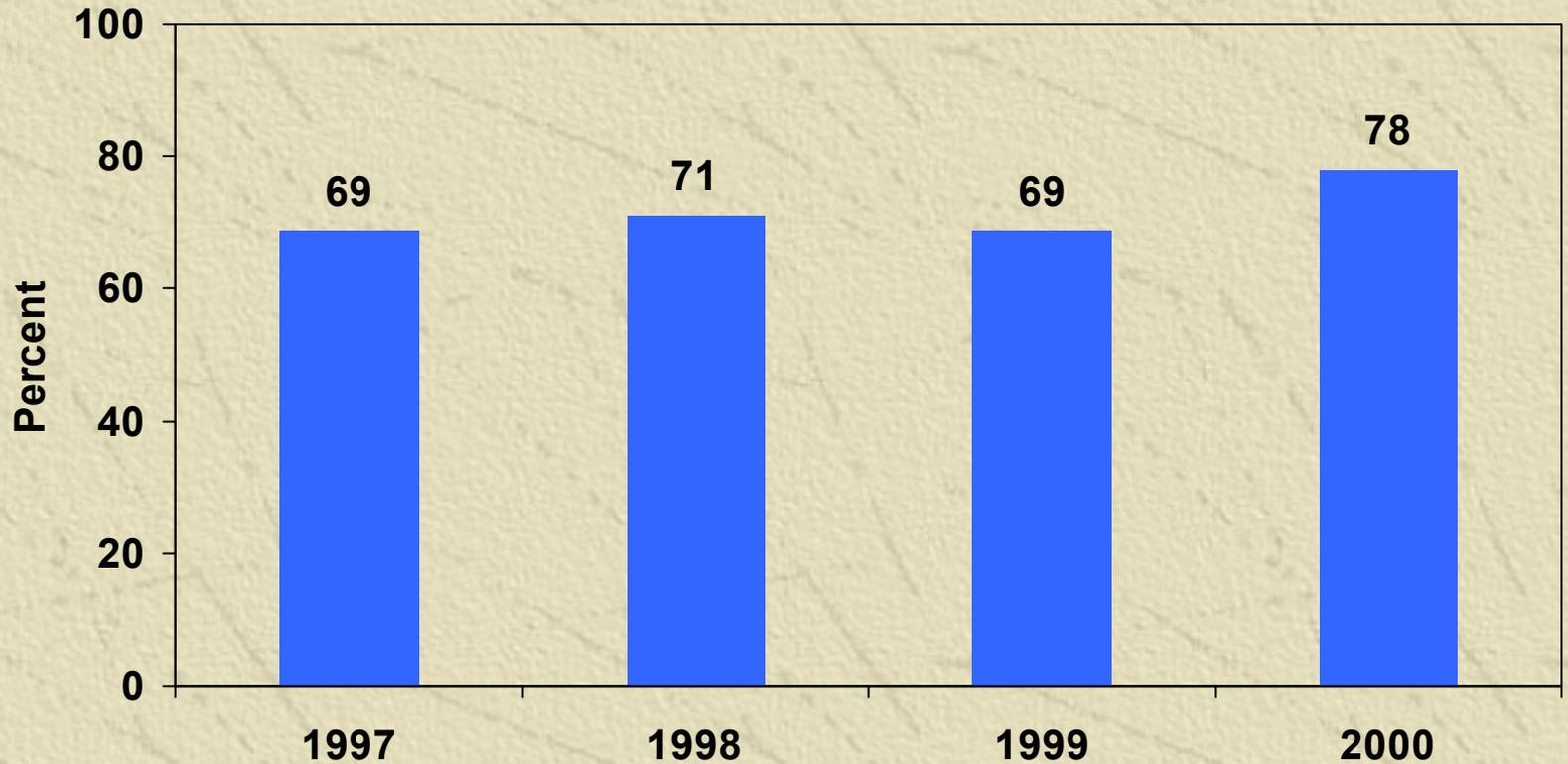
# Women's Health: Unintended Pregnancy by Sociodemographic Characteristics

Prevalence of Unintended Pregnancy Among Women Having a Live Birth  
Arkansas PRAMS 1999



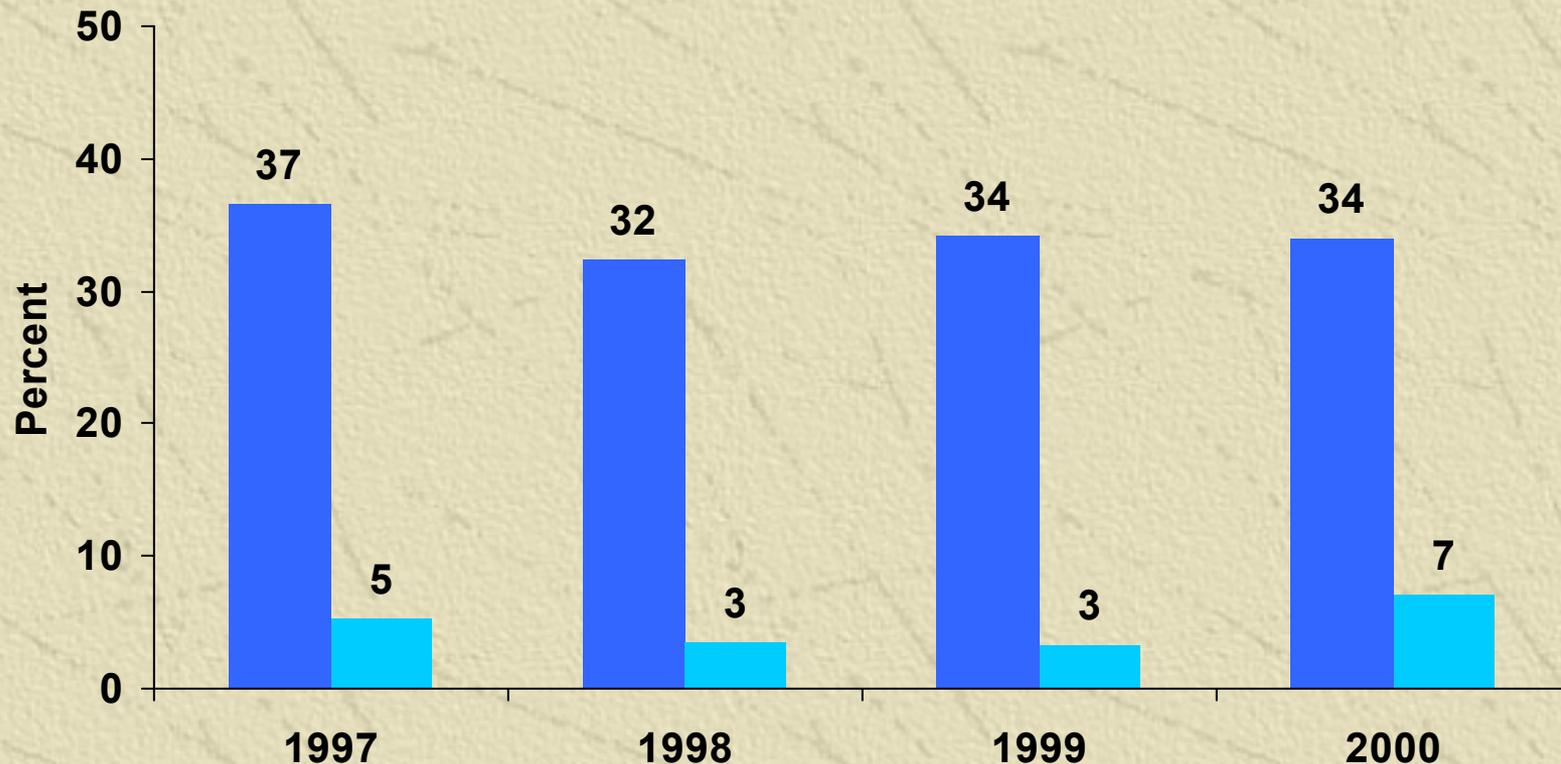
# Pregnant Women: HIV Counseling

Figure Percent pregnant women counseled for HIV testing in Prenatal Care:  
Arkansas PRAMS, 1997-2001



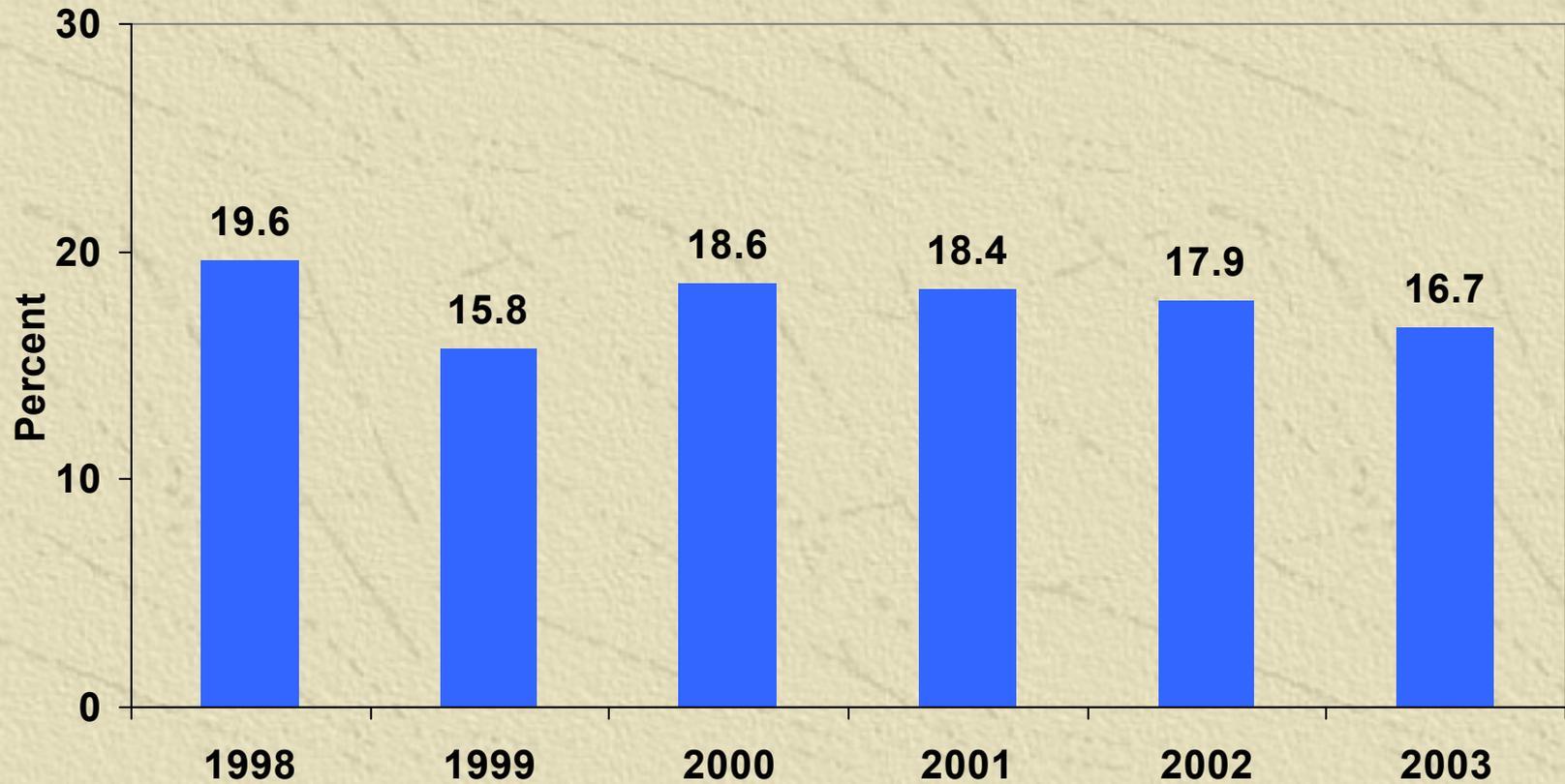
# Pregnant Women: Alcohol Consumption

Percent women drinking alcohol 3 months before pregnancy, and drinking alcohol during the last 3 months of pregnancy: Arkansas PRAMS, 1997-2001



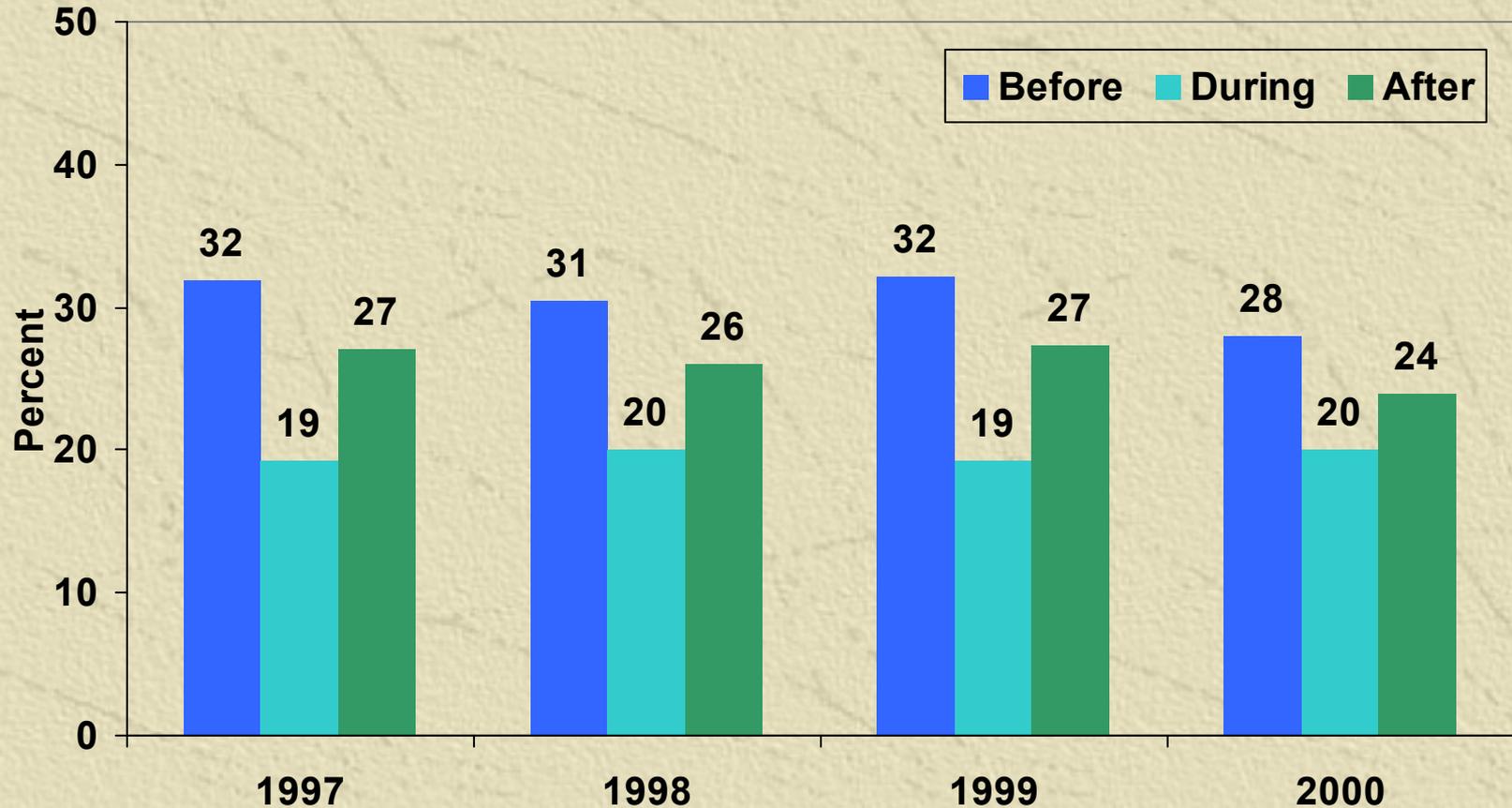
# Pregnant Women: Tobacco Use

Figure Percent mothers smoking during pregnancy, Arkansas Birth Certificates, 1999-2003



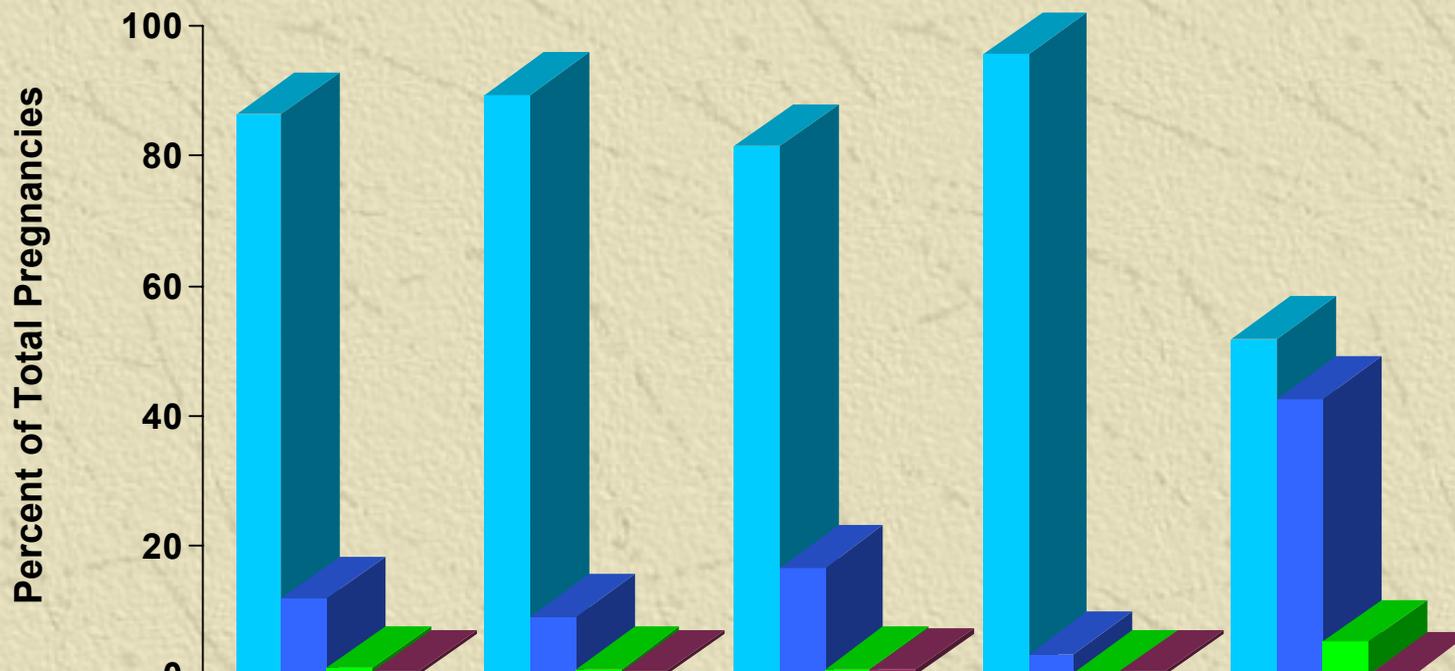
# Pregnant Women: Tobacco Use

Percent women smoking before, during and after pregnancy:  
Arkansas PRAMS, 1997-2000



# Pregnant Women: Pregnancy Outcomes

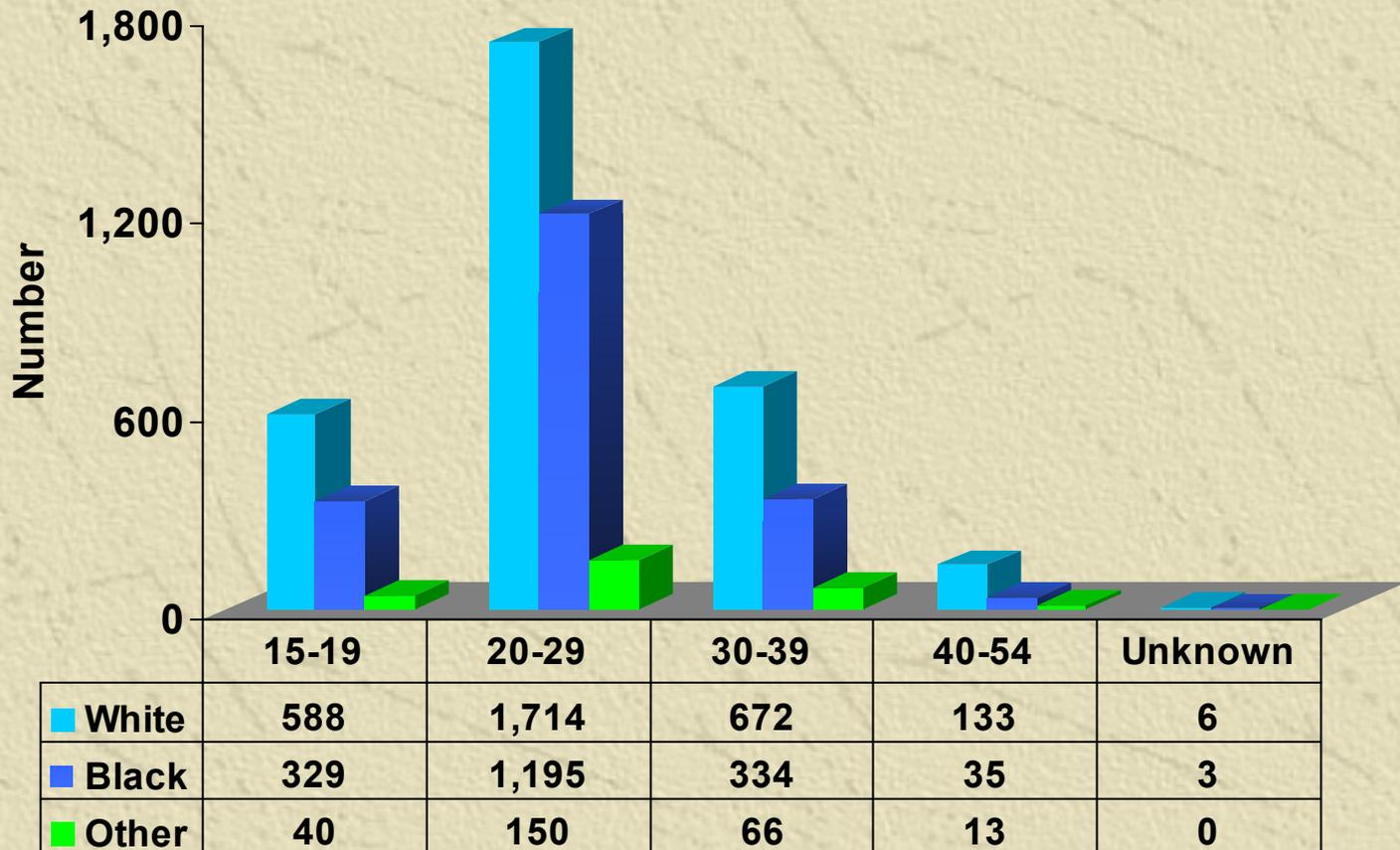
Percent of Pregnancy Outcomes by Race/Ethnicity: Arkansas 2002



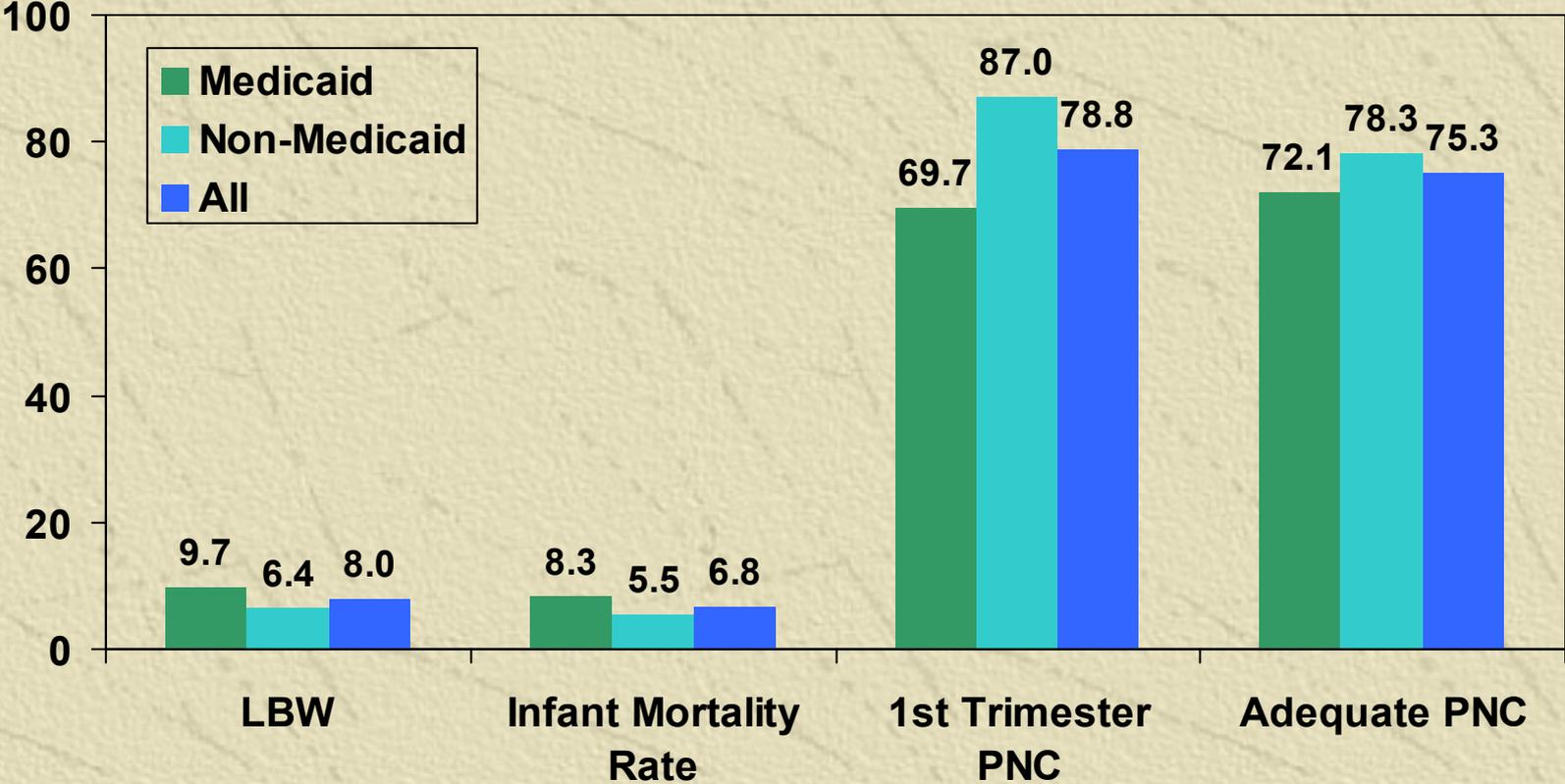
	All Races	Non-His White	Non-His Black	Hispanic	Other Races
Live Births	86.4	89.4	81.5	95.6	51.9
Induced Abortions	11.9	9.1	16.6	3.3	42.7
Spontaneous Abortions	1.2	1	1	0.5	5.2
Fetal Deaths	0.6	0.6	0.9	0.6	0.2

# Pregnant Women: Abortions

Induced Abortions by Age and Race: Arkansas Occurrences, 2003



# Health System Capacity



# Health System Capacity-2003

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- ✦ For infants (0-1), children (1-19), and pregnant women, the percent poverty level for eligibility is 200 percent for State's Medicaid programs. The national SCHIP program is used in Arkansas to pay for undocumented pregnant women who will deliver in the state, and to allow inclusion of children from 100-200% of the poverty level. SCHIP funds are not used to cover families eligible for AR Kids A but choose to remain in AR Kids B, or for state employees.
- ✦ The 2003 Rate of children hospitalized for asthma is 30 per 100,000 children age 0-4 years (2003).
- ✦ 96% Medicaid children < one y.o.a received at least one initial or periodic screening in 2003
- ✦ 61% SCHIP children received at least one periodic screening ???

# General MCH Data Capacity

<b>Data Item</b>	<b>Location</b>	<b>Timely Data Access</b>
Annual linkage of infant birth and infant death certificates	Center for Health Statistics	Yes
Annual linkage of infant birth certificates and Medicaid Eligibility or Paid Claims Files	Center for Health Statistics	Yes, sometimes, but not consistent
Annual linkage of infant birth certificates and WIC Eligibility Files	Center for Health Statistics	Yes
Annual linkage of infant birth certificates and Newborn Screening Files	Center for Health Statistics	Yes
Hospital Discharge Survey for at least 90% of in-State discharges	Center for Health Statistics	Yes
Annual Birth Defects surveillance system	Center for Health Statistics	Yes
Pregnancy Risk Assessment Monitoring System (PRAMS)	Center for Health Statistics	Yes
Youth Risk Behavior Survey (YRBS)	Arkansas Department of Education	Yes
WIC Program Data	ADH WIC Program Data	Yes
Pediatric Nutrition Surveillance System (PedNSS)	ADH WIC Program	Yes

# **Maternal and Child Health Indicators: 1999-2004**

**Li Zheng**

**MCH Epidemiologist**

**Arkansas Department of Health**

**June 28th, 2005**

# **Maternal and Child Health Indicators**

- **18 National Performance Measures (NPM)**
- **9 State Performance Measures (SPM)**
- **12 Health Status Indicators (HSI)**
- **6 National Outcome Measures (NOM)**
- **6 Health Systems Capacity Indicators (HSCI)**

# Trends for Maternal and Child Health Indicators

	<b>NPM (18)</b>	<b>SPM (9)</b>	<b>NOM (6)</b>	<b>HSI (12)</b>	<b>HSCI (6)</b>
<b>Improving</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>2</b>
<b>No Change / Trend Unclear</b>	<b>8</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>2</b>
<b>Worse</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>2</b>

# Pregnancy and Infant Health: Improving

MCH Indicators		1999	2000	2001	2002	2003	2004
NPM 1	% newborns with confirmed positive blood screens who get appropriate follow-up care	89.1	89.0	100.	92.7	98.2	97.6
NPM 8	Birth rate for teens 15-17 y.o.a.	37.5	35.5	31.7	31.6	29.9	29.6
NPM 12	% newborns who received hearing screen before hospital discharge	49.9	64.5	84.8	88.1	97.5	96.5
NPM 18	% births whose mothers received first trimester prenatal care	77.2	78.4	78.2	78.2	79.9	80.0

\* Data for 2004 are provisional

# Pregnancy and Infant Health: No Change/Trend Unclear

MCH Indicators		1999	2000	2001	2002	2003	2004
NPM 11	% mothers who breastfeed their infants at hospital discharge	60.3	60.2	59.7	61.1	61.1	61.1
NPM 17	% very low birth weight infants delivered at facilities for high risk deliveries and neonates	66.8	67.1	66.4	65.4	64.2	65.7
NOM 2	Ratio of black infant mortality rate to white infant mortality rate	1.8	2.0	2.1	1.9	1.8	1.9
NOM 4	Post-neonatal mortality rate per 1,000 live births	3.4	3.5	3.7	3.3	3.3	3.3
NOM 5	Peri-natal mortality rate per 1000 live births plus fetal deaths	9.6	9.6	10.0	10.5	9.7	9.8

# Pregnancy and Infant Health: No Change/Trend Unclear

MCH Indicators		1999	2000	2001	2002	2003	2004
HSI 2b	The percent of live singleton births weighing less than 1,500 grams.	1.4	1.4	1.4	1.4	1.3	1.5
HSCI 4	The percent of women (15 through 44) with a live birth during the reporting year whose observed to expected prenatal visits are greater than or equal to 80 percent on the Kotelchuck Index	77.0	80.5	80.7	80.7	80.5	79.8
SPM 24	% pregnant women counseled for HIV testing	69.0	78.0	70.0	70.8	69.1	69.1
SPM 32	% women smoking during pregnancy	15.8	18.6	19.5	20.4	20.3	20.3

# Pregnancy and Infant Health: Worse

MCH Indicators		1999	2000	2001	2002	2003	2004
HSI 2A	Very low birth weight rate	1.7	1.6	1.7	1.7	1.6	1.9
HSI 1A	The percent of live births weighing less than 2,500 grams.	8.7	8.6	8.7	8.7	8.9	9.3
HSI 1B	The percent of live singleton births weighing less than 2,500 grams	7.2	7.2	7.1	7.2	7.3	7.5
NOM 1	Infant mortality rate per 1,000 live births	8.3	8.4	8.3	8.4	8.6	8.1
NOM 3	Neonatal mortality rate per 1,000 live births	4.9	4.9	4.6	5.0	5.4	4.8
NPM 15	% Very low weight births among all live births	1.7	1.6	1.7	1.7	1.6	1.9

\* Data for 2004 are provisional

# Children's Health Services and Systems: Improving

MCH Indicators		1999	2000	2001	2002	2003	2004
NPM 16	Death rate per 100,000 youths aged 15 through 19 due to suicide	13.4	6.5	11.7	10.2	5.6	4.6
SPM 22	% children through age 18 and below 200% of poverty enrolled in ARKids First child health insurance program	9.6	17.8	23.8	22.3	17.3	24.4
HSI 03 A	Death rate per 100,000 due to unintentional injuries, children 14 years and under	19.1	17.6	19.4	15.2	12.9	13.3

\* Data for 2004 are provisional

# Children's Health Services and Systems: Improving

MCH Indicators		1999	2000	2001	2002	2003	2004
HSI 3B	Death rate per 100,000 due to unintentional injuries, children 14 years and under, caused by motor vehicle crashes	8.8	8.2	8.2	6.0	6.7	7.3
HSI 3C	Death rate per 100,000 due to unintentional injuries, youth 15 through 24 years, caused by motor vehicle crashes	36.4	40.0	45.2	48.4	38.2	40.7
HSI 4B	Non-fatal injury rate per 100,000 due to motor vehicle crashes, children aged 14 years and under		78.5	76.7	68.1	71.8	71.8
HSCI 1	Asthma hospitalization rate per 10,000 children less than five years of age.	35.2	35.6	33.1	33.5	27.6	27.6
HSCI 7	% EPSDT eligible children aged 6 through 9 years who have received any dental services during the year.	48.4	30.1	35.5	38.0	39.4	41.0

\* Data for 2004 are provisional

# Children's Health Services and Systems: No Change/Trend Unclear

MCH Indicators		1999	2000	2001	2002	2003	2004
SPM 21	% of Arkansas High School students engaging in sexual intercourse.	55.9		55.5		51.9	51.9
HSI 3C	Death rate per 100,000 for unintentional injuries for youth aged 15 through 24 years due to motor vehicle crashes	36.4	40.0	45.2	48.4	38.2	40.7
HSI 4C	Non fatal injury rate per 100,000 youth aged 15 through 24 due to motor vehicle crashes		151.2	152.5	150.9	150.8	150.8
SPM 30	% public school students overweight greater than 95th percentile					22.0	22.0
SPM 31	% at-risk for overweight children in Arkansas Public schools					17.7	17.7
NPM 14	% of potentially Medicaid-eligible children who have received a service paid by the Medicaid Program	72.7	76.7	92.7	99.9	88.9	79.5
NOM 6	Death rate per 100,000 children aged 1 through 14	34.1	33.7	29.5	29.4	26.4	31.7
HSCI 2	% Medicaid enrollees whose age is less than one year who received at least one initial or periodic screening	79.0	74.6	82.4	98.6	95.9	63.2

# Children's Health Services and Systems: Worse

MCH Indicators		1999	2000	2001	2002	2003	2004
NPM 7	% of 19-35 month old who have received full schedule of age appropriate immunizations against MMR, DTP, Polio, Hib and Hep B	86.8	86.9	81.0	77.2	68.5	78.9
NPM 9	% third graders who have received protective sealants on at least one permanent molar tooth	21.8	17.3	24.0	24.4	14.9	15.0
NPM 13	% children without health insurance	11.8	11.6	13.0	13.0	13.0	7.4
HSI 4A	Rate per 100,000 of all non-fatal injuries among children aged 14 years and younger		320.6	320.5	327.8	331.4	331.4
HSCI 3	% of State Children's Health Insurance (SCHIP) enrollees , age under 1 yr during the reporting year, who received at least one periodic screen	70.0	79.5	86.2	96.0	60.5	55.6
SPM 27	% children receiving WIC services above the 95th percentile on the National Center for Health Statistics weight for height growth charts	8.0	8.6	8.8	10.2	10.8	10.8
NPM 10	Death rate per 100,000 for children 14 and under due to motor vehicle crashes	8.9	8.2	5.2	6.0	6.7	7.3

\* Data for 2004 are provisional

# Children with Special Health Care Needs: Improving

MCH Indicators		1999	2000	2001	2002	2003	2004
SPM 28	% of 14 to 15 year olds on Children's Medical Services (CMS) who state that CMS services have helped improve their transition to adult life	11.0		15.0	5.3	8.5	7.9

\* Data for 2004 are provisional

# Children with Special Health Care Needs: No Change/Trend Unclear

MCH Indicators		1999	2000	2001	2002	2003	2004
NPM 2	% CSHCN 0-18 yrs whose families partner in decision making at all levels and are satisfied with the services they receive (CSHCN Survey)				52.4	76.8	53.7
NPM 3	% CSHCN 0-18 who receive coordinated, ongoing, comprehensive care within a medical home (CSHCN Survey)				52.2	52.2	52.2
NPM 4	% CSHCN 0-18 whose families have adequate private and or public insurance to pay for the services they need (CSHCN Survey)				55.9	66.3	54.5
NPM 5	% CSHCN 0-18 whose families report that community-based services are organized so they can use them easily (CSHCN Survey)				70.1	71.6	71.6
NPM 6	% YSHCN receiving services necessary to make transition to all aspects of adult life (CSHCN Survey)				5.8	5.3	10.5
SPM 29	% responding parents reporting that CMS service coordination teams told them about other services available to them (CSHCN survey)	30.0		50.9	54.7	48.3	51.9

\* Data for 2004 are provisional

# Children with Special Health Care Needs: Worse

MCH Indicators		1999	2000	2001	2002	2003	2004
HSCI 8	% State SSI beneficiaries less than 16 years old receiving rehabilitation services from the CSHCN Program	42.7	54.5	67.7	49.3	41.4	43.0

\* Data for 2004 are provisional

# **Women: Improving**

Of two indicators for women being followed, neither are improving.

# Women: Worse

MCH Indicators		1999	2000	2001	2002	2003	2004
HSI 11	Rate per 1,000 women aged 15 through 19 years with a reported case of Chlamydia	23.0	23.1	25.2	24.5	26.6	27.9
HSI 5B	Rate per 1,000 women aged 20 through 44 years with a reported case of Chlamydia	5.0	5.7	6.6	2.5	2.6	7.2

\* Data for 2004 are provisional

**MCH Needs Assessment  
Stakeholders' Meeting  
January 14, 2005**

**MINUTES**

**Attendance:** Dr. Paul Halverson, Dr. Vaniesse Collins, Ms. Joyce Gibson, Ms. Anna Huff, Ms. Ramona Taylor, Mr. Jerry Strobel, Mr. Rodney Farley, Ms. Liz Rainwater, Ms. Alma Desio, Dr. David Bourne, Ms. Cherie Anthes, Ms. Susan Moudy, Dr. Eldon Schulz, Dr. Curtis Lowery, Dr. Steven Strode, Ms. Lee Clark, Ms. Regina Davenport, Ms. Susan Tullos, Ms. Sip Mouden, Ms. Rhonda Sanders, Ms. Nancy Holder, Ms. Carladder Parham, Dr. Kaleem Sayyed, Mr. Brad Planey, Ms. Shaun Addison, Ms. Andi Ridgway, Ms. Jennifer Lowe (for Roger Chinn), Ms. Li Zheng, Dr. Dick Nugent

**Introductions**

Dr. Nugent began the meeting welcoming the participants. He explained that the purpose of the meeting was to fulfill a requirement of the MCH Block Grant to conduct a needs assessment every 5 years. This meeting is the opportunity for community, university, state agency, and ADH regional leaders to express their suggestions and ideas as external stakeholders to the development of the MCH Block Grant application. After listing the groups of stakeholders invited, and the MCH population subsets to be planned for, he introduced Dr. Paul Halverson, Chair of the COPH Department of Health Policy and Management who served as facilitator for the day's discussion.

Dr. Halverson welcomed the group and led the group as all individuals introduced themselves. Each participant got to express a "passion" which most strongly motivates him/her in current professional and community roles.

**Reporting on the Current MCH Program and Related Data**

Dr. Kaleem Sayyed gave a brief overview of what is being done with the current MCH Block funding. The MCH Bureau in Washington requires states to use the dollars 30% for children and youth systems, 30% for CYSHCN, and only 10% for administration. The remainder goes for pregnancy and infant care. ADH has used the block grant to salary ADH employees to provide services in communities.

Ms. Li Zheng provided a short summary of statistics relative to MCH health issues.

**The First Breakout Group Discussions and Reports**

After a break, tables were identified as group discussions in four subject areas: Pregnancy and Infant Health, Child Health and Basic Services, Children with Special Health Care Needs, and Women in reproductive and post reproductive life stages. The participants selected the topic of their choice, and participated in a brainstorming process for about 45

minutes. The full group reassembled in plenary discussion to hear reports of all breakout discussions. Records of those breakout group discussions are attached.

### **The Plenary Discussion Summary of Breakout Group Reports**

Dr. Halverson led the discussion on how to combine and prioritize. Dr. Nugent and Dr. Sayyed looked at all the newsprint sheets and picked out the common themes addressed by the subgroups. These themes were then listed on newsprint, and those present made clarifications and additions. Several cross cutting issues were identified. At the end of this discussion, the full stakeholders' group was adequately satisfied with the summary developed. Dr. Halverson reassured all that each idea was captured on newsprint sheets and would be taken into consideration.

### **Lunch**

During lunch, participants served themselves at a buffet, and sat back down at tables to continue to get to know each other and share ideas. Dr. Halverson then entered the summary listing of issues into an electronic voting system called "Option Finder."

### **Afternoon Session and Voting**

Dr. Nugent reconvened the plenary group. Three participants who had come in late introduced themselves, and shared their "passions" for the health of mothers and babies. Dr. Halverson explained the voting process and handed out keypads through which each participant would register his/her voting preferences. Dr. Halverson, from the summary list, had identified 13 topic areas of interest to the group as a whole, and entered those into the Option Finder system. He explained that he would lead the voting process through each of the 13 priorities, first for a vote using a scale of 1-7 on *importance* of the topic, and then for a vote using the same scale on *willingness* to take action to do something about the issue. The voting took place and the result was summarized as a scatter-plot.

At this point, Dr. Halverson explained that the results would be given to MCH Staff to take these findings and develop some more specific plans, for example to refine the list of issues and consider developing problem statements from them. Dr. Nugent explained that the staff would do this and get back to the participants by email.

### **Conclusion of the Meeting**

The group established Friday, February 11, 2005 at 9:30 am as the date and time of the next meeting, and Dr. Nugent said he would attempt to reserve the same room as held this meeting, Little Rock City Library, Main Library building.

# **Attachment 1 Breakout Group Discussion Summaries**

## **A. Pregnancy and Infant Health**

### **1. Health system problems for pregnant women and infants\***

- Poverty and low education as contributors to prenatal problems
- Economic barriers – food, clothing, shelter, dental care, antibiotics
- Lack of first trimester prenatal care
- Barriers to early prenatal care – insurance, doctor's offices too busy
- Lack of education about the need for early prenatal care
- Ethnic disparities in access, low birth weight, infant death
- Health insurance sometimes doesn't cover preventive services
- Lack of health care resources, especially in rural areas, to manage high-risk pregnancy.

### **2. Specific health status problems for pregnant women and infants\***

- High-risk pregnant women (medical complications)
- Smoking
- Diabetes
- Hypertension
- Depression and other mental health problems
- Birth defects prevention through Folic Acid public awareness

Subgroup A discussed the ANGELS (Antenatal and Neonatal Guidelines for Education and Learning Systems) program, now being developed by a collaborative effort between UAMS, Medicaid, ADH and many community physicians. ANGELS anticipates establishing a telemedicine consultation system for providers, and a telephone consultation and coordination system for patients. The group felt that this new system represented an important opportunity for service and professional/patient education for pregnant women with a variety of problem in the prenatal period. However, the importance of prevention in the period prior to conception was recognized.

**\*I have taken the liberty to group the ideas into health system issues and health status issues simply for clarification.**

## **Attachment 1, continued**

### **B. Child Health Services and Systems**

#### **1. Health system problems for children's services and systems**

- Lack of education of parents and the public regarding adolescent health issues
- Lack of education about smoking
- Lack of education about teen pregnancy
- Lack of ability to assure all routine screening visits for EPSDT kids
- Lack of coordination of school health programs
- Inadequate school nutrition policy and attention to physical activity (Act 1220)
- Incomplete age appropriate immunizations for children
- Lack of education about oral health
- Lack of education in Spanish targeted to Hispanic families
- Lack of education about the importance of newborn screening
- Inadequate assessment of infant deaths to uncover causes and make changes
- Inadequate assessment of child mortality and child deaths.

#### **2. Health status problems for children and children's services and systems**

- Teen pregnancy, especially second pregnancies
- Teen sexuality
- STDs
- Inadequate physical fitness especially among adolescents
- Overweight and Obesity among children
- SIDS and back to sleep
- Shaken Baby Syndrome
- Congenital disorders, metabolic and hearing
- Child deaths
- Injury deaths
- Smoking

Subgroup B discussed the opportunity to coordinate actions with and for the Healthy Arkansas Initiative. This effort is sponsored by Governor Huckabee and being developed by a collaborative effort between the Departments of Health, Human Services and Education.

## **Attachment 1, continued**

### **C. Children and Youth with Special Health Care Needs (CYSHCN)**

#### **1. Health care system problems for CYSHCN**

- Early identification of children with special needs in the school or community
- Addressing a child's special needs for information and continuity of care through a complicated system of educational and medical care
- Need of education and training of families with CYSHCN
- Need single point of entry, e.g. hotline with PSA advertisement
- Stability and reliability of care coordinator services, available to community
- Medical home for family
- Educating parents, children and providers about the child's need for transition to adult health services
- Mental health services often not available or affordable
- Need in-state programs for sexual abuse and to rehabilitate perpetrators
- EPSDT screening not being done in PCPs offices
- EPSDT eligibility criteria too narrow in AR
- Oral health services not available
- Respite care services insufficient in number
- Need more physical education opportunities, especially for obese children

#### **2. Health status problems for CYSHCN**

- Obesity
- Depression and anxiety
- Hyperactivity disorders and Autism spectrum disorders
- Physical disabilities
- Cognitive and learning disabilities
- Asthma
- Sexuality

Subgroup C's concerns were most urgent around the need for family centered care and care coordination throughout the life of the special needs child and adolescent. Especially, the needs for mental health issues and issues around transition to adult life were emphasized. Insurance and health care coverage issues are critical to affected families.

## **Attachment 1, continued**

### **D. Women's Health**

#### **1. Health system problems for women**

- Access to care for transportation, insurance (un- and under- insurance), physician unavailability or unwillingness to see Medicaid and Medicare
- Lack of a primary care medical home for all Arkansans
- Inadequate health care access for racial/ethnic populations
- Lack of knowledge of health issues (smoking, obesity, physical activity)
- Lack of available medical and health screening for all
- Lack of available and accessible nutrition services (preparation and food choices)
- Lack of parity in coverage and awareness for prevention as well as treatment

#### **2. Health status problems for women**

- Emotional and mental health needs for teens, especially pregnant teens (lack of positive models)
- Substance abuse
- Obesity, physical inactivity, smoking
- Oral health needs
- Menopausal health issues and hormone therapy
- Domestic violence
- Mental health issues (depression, therapy not covered, stigma, no prevention)
- Diabetes
- High blood pressure
- Coronary vascular disease
- Cancer
- Oral health problems
- Stressful life situations without access to stress management support
- Physical inactivity
- HIV/STD/Hepatitis

Subgroup D recognized the importance of addressing women's health throughout the life stages from adolescence to old age, in addition to the current focus on pregnancy and childbearing years. National attention to Women's Health issues is bringing more resources and efforts to increasing public awareness of important issues and ways to prevent illness.

## **Attachment 1, continued**

### **3. Health data systems improvements needed**

The Women's Health group also listed areas of need for better data systems and analysis.

- Mortality and morbidity assessment related to risk factors like low birth weight
- Need for a central repository for easier access to comprehensive data
- Need for more education on how to interpret data
- Keeping track of chief complaints on ER visits
- Technology and information system needs in smaller hospitals
- More precise identifications of cause of death for women
- Better data collection for screening for health risk
- Sharing data across agencies

## **Attachment 2 Summary of issues raised**

### **The list of common themes and cross-cutting topics to be voted upon**

- A.** Obesity, nutrition, physical activity
- B.** Oral health, for all children, but especially for pregnant women and CYSHCN
- C.** Chronic diseases, especially obesity, diabetes, hypertension, cancer, heart disease
- D.** Communicable diseases, especially HIV, STD, Immunization preventable diseases
- E.** Mental Health, especially depression, suicide, chronic stress
- F.** Substance abuse including alcohol
- G.** Smoking and other tobacco use
- H.** Access to care, especially for prenatal care, routine child care, and CYSHCN
- I.** Domestic violence and injury prevention (these should not have been lumped)
- J.** Needs for health education and behavior change, especially public awareness and marketing, sexuality and early prenatal care
- K.** Need to address health system complexity through care coordination and family-centered approaches such as medical home
- L.** Need to improve child health screening programs and care coordination, especially EPSDT, Newborn screening, AR Kids as a way to support screening and prevention
- M.** Application of distance communications technology – telemedicine, distance learning, knowledge management, consultation, referrals

### **The Option-Finder result of the voting**

The group voted on these priorities using the Option-Finder keypads and software, scoring each item on the above list first for importance, and next for willingness to take action. The resulting priorities are as follows:

1. **(A)** Obesity, nutrition, physical activity
2. **(H)** Access to care, especially for prenatal care, routine child care, and CYSHCN
3. **(G)** Smoking and tobacco use
4. **(C)** Chronic diseases, especially obesity, diabetes, hypertension, cancer, heart disease
5. **(J)** Needs for health education and behavior change, especially public awareness and marketing, sexuality and early prenatal care
6. **(D)** Communicable diseases, especially HIV, STD, Immunization preventable diseases
7. **(K)** Need to address health system complexity through care coordination and family-centered approaches such as medical home
8. **(L)** Need to improve child health screening programs and care coordination, especially EPSDT, Newborn screening, AR Kids as a way to support screening and prevention
9. **(E)** Mental health, suicide, depression, chronic stress
10. **(M)** Application of distance communications technology – telemedicine, distance learning, knowledge management, consultation, referrals
11. **(B)** Oral health, for all children, but especially for pregnant women and CYSHCN
12. **(I)** Domestic violence and injury prevention (these should not have been lumped)
13. **(F)** Substance abuse including alcohol



# Maternal and Child Health Needs Assessment Stakeholders' Recommendations

## I. Partnership for Pregnancy and Infant Health

A. The broad issues to be addressed and statement of purpose:

To reduce the burden of illness for pregnant women and infants by enhancing public awareness, promoting healthy lifestyles, increasing access to prenatal care, increasing early identification of risk factors in pregnancy, and enhancing referral of pregnant women at risk for care by the appropriate provider.

B. Specific areas needing attention:

1. Health status problems:

- Unintended pregnancy and adolescent pregnancy
- Pregnancy risk factors, especially psycho-social issues such as smoking, family violence, substance abuse, and mental health; as well as obesity, diabetes, hypertension and pre-eclampsia
- Disparities in health outcomes for low-income and minority populations
- Low and very low birth weight

2. Health system problems:

- Lack of early prenatal care due to patient related and system related barriers (awareness and motivation to seek care and lack of availability)
- Lack of health insurance coverage for obstetrical services, especially for immigrant families – difficulty with using improper identification
- Incomplete screening for risk factors including smoking, depression, substance abuse family violence, obesity, diabetes, and hypertension
- Infrequent use of telemedicine for consultation and referral, especially with links to community sources of psychological and social supports in pregnancy
- Inadequate referral of pregnant and delivered women with identified chronic diseases to sources of chronic care such as primary care providers and specialty clinics
- Barriers to referrals among ADH clinics, Community Health Centers, AHECs and UAMS clinics
- Inadequate education in schools around pregnancy and infant health awareness

C. Specific recommendations:

1. Make greater use of mass media and community awareness efforts to encourage early prenatal care
2. Continue Medicaid expansions of obstetrical coverage such as presumptive eligibility and coverage of the “unborn child,” and seek ways to address the problem of improper identification among immigrant pregnant women
3. Enhance professional education around the importance of very early prenatal care (before 12 weeks), and the use of those visits for psycho-social risk assessment and patient education
4. Enhance identification of risk factors such as smoking, partner violence, depression and substance abuse through more frequent use of standardized questionnaires
5. Enhance referrals to community sources of support for risk issues through telephone case management systems
6. Encourage consultation and referrals through collaborative development of prenatal care guidelines and telemedicine consultations and referrals
7. Enhance referral of very high risk pregnant women, and women in very preterm labor to sources of special care such as level III centers.

D. Potential planning partners:

1. Arkansas Department of Health, especially prenatal clinics and Hometown Health Improvement Leaders
2. Arkansas Department of Human Services, especially Medicaid, and County Offices
3. The UAMS College of Medicine, especially the Departments of Family and Community Medicine, OBGYN, Pediatrics (Neonatology) and the AHECs; and the College of Public Health, especially the Department of Maternal and Child Health
4. Private physicians especially in family practice, obstetrics and pediatrics
5. The Primary Care Association and related public and private health providers
6. Schools, businesses and the faith based community.

E. Measures of success:

1. % Births with first trimester prenatal care
2. % Births to African American and Hispanic women with first trimester prenatal care
3. Enrollment of women into Medicaid for Pregnant Women, and infants into the “unborn child” coverage in Medicaid
4. # prenatal care providers in Arkansas who are participating in the ANGELS Thursday morning teleconferences
5. # pregnant women who are receiving consultations through ANGELS telemedicine services, and ANGELS telephone case management

# Maternal and Child Health Needs Assessment Stakeholders' Recommendations

## II. Partnership for Child Health Services and Systems

A. The broad issues to be addressed and statement of purpose:

To reduce the burden of illness for children in Arkansas by implementing a plan that would assure a seamless boulevard of access to quality health care and health education to all of Arkansas children and families.

B. Specific areas needing attention:

1. Health status problems:

- Obesity
- Tobacco use
- Immunization-preventable disease
- Developmental disabilities and special health care needs
- Mental health
- Oral health

2. Health system problems:

- Due to economic conditions, the estimated number of uninsured children in Arkansas has increased, despite the increases in eligibility and enrollment in Medicaid/AR Kids First.
- Un-served children remain or have increased in number as a result, as has inappropriate use of emergency rooms.
- With the transfer of child health screenings to Primary Care Physicians in AR Kids First, it is not apparent that thorough and frequent developmental screenings among enrolled children have been maintained.
- Important limitations in availability of and access to services for low-income children still exist. This is particularly true for smoking, obesity, developmental disabilities, mental health problems and oral health conditions.
- Health disparities exist for disadvantaged groups and there is inadequate data for sub-groups.
- Children removed from home are at risk for needing health services.

C. Specific recommendations for action:

1. Support the work of a Child Health Policy Initiative to include health care providers (nurses, doctors etc.), Hospital Associations, CHC Association, Medicaid, Dept. of Health, UAMS School of Medicine and College of Public Health, DHS agencies like Medicaid, Behavioral Health, Early Childhood and Business representatives.
2. Continue efforts to expand health insurance coverage for low-income children.
3. Train primary care physicians in developmental assessments and screening for chronic disease in childhood such as obesity, diabetes, mental health problems including substance abuse, and oral health conditions.
4. Develop channels of communication for consultation and referral of children with chronic disease as above.

D. Potential planning partners:

1. Legislators
2. Child Advocacy Organizations
3. Arkansas Center for Health Improvement
4. Arkansas Academy of Pediatrics
5. Arkansas Academy of Family Physicians
6. Insurance Commission and organizations
7. Department of Human Services, including Medicaid, Early Childhood, Mental Health and Substance Abuse Divisions.
8. Department of Education including offices of Educational Support Services, Special Education and School Cooperatives.

E. Measures of success:

1. Number and rate of children without health insurance.
2. Body mass index measurements in health care sites
3. Body mass index calculations from surveys such as the Behavioral Risk Factor Surveillance System, and the Youth Risk Behavior Survey
4. AFMC audit of private provider records - % patients whose records document BMI, counseling and wellness plans
5. Health Plan Employers' Data and Information Set (HEDIS)
6. Community Health Centers and Area Health Education Centers' care collaborative data.

## **Maternal and Child Health Needs Assessment Stakeholders' Recommendations**

### **III. Partnership for Children and Youth with Special Health Care Needs**

A. The broad issues to be addressed and statement of purpose:

To reduce the burden of illness for children by enhancing early identification of children and youth with special health care needs (CYSHCN) in schools and communities, insuring strong family supports for these children, and developing family-friendly access to quality services into adulthood.

B. Specific areas needing attention:

1. Health status problems:

- A substantial number of children are at risk for developmental and other disabilities. New surveys are only now beginning to document these needs.
- Chronic illnesses that commonly burden children include birth defects, developmental disabilities and asthma, but also include oral health and mental health problems.
- Families burdened by chronic disease in their children, and especially those with limited insurance coverage and financial means, are especially vulnerable to mental illness and family separation.
- Normal developmental stages such as adolescence and maturing into adulthood require special management in CYSHCN.

2. Health system problems:

- Arkansas lacks sufficient screening and new identification of CYSHCN.
- Existing screening is limited to young children and is not continuous throughout childhood into adulthood.
- Existing screening is limited to medical providers and is not conducted in non-medical child services entities; e.g., early childhood education, child care facilities, and other community-based services.
- Awareness is limited among health care providers of the importance of family-centered care, family input into healthcare decision-making, and care coordination.
- The complexity and fragmented nature of the health care system in both medical and educational aspects poses barriers for families.
- Especially, screening for oral and mental health care problems is very limited, as is access to care for problems identified.

C. Specific recommendations for action:

1. Promote the concept of the Medical Home among primary care physicians, child care providers and parents.
2. Make use of new national screening surveys to recognize the number and severity of chronic diseases and developmental disabilities among children.
3. Extend screening for developmental disabilities and chronic illness to all children to identify those at risk.
4. Educate screeners from many disciplines so that screening can take place in more settings and by more providers.
5. Provide opportunities for continuing education for screeners.
6. Develop a menu of screening tools and train in their use.
7. Train providers for special needs children to make their services family-centered and community based.
8. Train providers in the management of transition to adult life for special needs children.

D. Potential planning partners:

1. Department of Human Services Divisions of Early Childhood, Medicaid, Developmental Disabilities, Early Education, Mental Health and Substance Abuse
2. Arkansas Foundation for Medical Care
3. Department of Education offices of Special Education and School Cooperatives
4. Department of Health offices of Hometown Health Improvement and Maternal and Child Health
5. University of Arkansas for Medical Sciences especially the College of Medicine (Pediatrics, Partners for Inclusive Communities, Continuing Education) and the College of Public Health (MCH, Health Policy and Management, Health Behavior and Education)
6. Child care providers and organizations
7. Practicing physicians screening children

E. Measures of success:

1. # Children in Part C of IDEA
2. # Children enrolled in AR Kids First (Medicaid)
3. # Children in AR Kids / Medicaid receiving a screening service
4. # Children in AR Kids / Medicaid receiving specialized services
5. # Children in Part B of IDEA
6. # Children in Title V CYSHCN data base
7. Parent satisfaction survey variables, CYSHCN

## Maternal and Child Health Needs Assessment Stakeholders' Recommendations

### IV. Partnership for Women's Health

A. The broad issues to be addressed and statement of purpose:

To reduce the burden of illness among women by addressing obesity and other chronic diseases through smoking cessation, better nutrition and increased physical activity.

B. Specific areas needing attention:

1. Health status problems:

- Obesity
- Smoking
- Diabetes mellitus
- Cardiovascular disease
- Hypertension
- Menopausal symptoms
- Osteoporosis

2. Health system problems:

- Lack of medical and health screenings
- Infrequent use of BMI calculation and patient education in primary care physicians' practices to increase awareness of risk
- Lack of available and accessible nutrition services for referral sources for counseling and places to do nutrition education
- Lack of reimbursement coverage and parity of reimbursement

C. Specific recommendations for action:

1. Encourage PCP practices to determine BMI measurements and counsel patients by involving OBGYN, Family Practice and AFMC groups to promote these activities with private physicians and audit doctors' records for wellness plans
2. Enhance Family Planning and Maternity clinic services in ADH by adding BMI measurements and patient counseling around obesity
3. Increase breast feeding counseling in all practices and enhance the WIC food package to support the breastfeeding mother
4. Develop more farmers markets
5. Enhance the Food Stamp Waiver in DHS to purchase more healthy foods
6. Promote tobacco cessation to ADH and DHS clients

7. Encourage primary care physicians to identify smoking, obesity and other chronic diseases and refer to community based clinics
8. Maintain the anti-tobacco campaign
9. Strengthen efforts at early diagnosis of breast and cervical cancer especially among obese patients
10. Develop strong ties with the Healthy Aging Coalition
11. Increase the number and activities of registered dietitians, home economists, and dietary services managers

D. Potential planning partners:

1. Health Insurance companies, especially Blue Cross and Blue Shield
2. Arkansas Foundation for Medical Care
3. UAMS, especially AHECs, Nutrition education and research, Rural Health Programs and all five Colleges within the University.
4. Arkansas Department of Health, especially the Healthy Arkansas Initiative, Family Planning, Maternity, WIC, and the aging programs.
5. Arkansas Department of Human Services, especially the Division of Aging, Medicaid, and Food Stamps
6. Community Coalitions including Healthy Arkansas, the Hometown Health Improvement local groups, Tobacco Coalitions
7. Department of Agriculture and Cooperative Extension Offices
8. Primary care physicians' organizations such as OBGYN, and Family Practice state specialty chapters
9. Arkansas Primary Care Association and Community Health Centers
10. Arkansas Department of Education, Higher Education and School Nurses
11. Employers and Worksite Wellness efforts
12. Faith based organizations

E. Measures of success:

1. Body mass index measurements in health care sites
2. Body mass index calculations from surveys such as the Behavioral Risk Factor Surveillance System, and the Youth Risk Behavior Survey
7. AFMC audit of private provider records - % patients whose records document BMI, counseling and wellness plans
8. Health Plan Employers' Data and Information Set (HEDIS)
9. Community Health Centers and Area Health Education Centers' care collaborative data.

## 1. Number of physicians by type of practice, AR 2004

# Family physicians: 1125 (Source: Arkansas Medical Board)  
# Generalists: 151 (Source: Arkansas Medical Board)  
# Pediatricians 381 (Source: State Center for Health Statistics)  
# OBGYNs 241 (Source: State Center for Health Statistics)

## 2. Estimates of practice capacities

Obstetricians:

200 deliveries per year in a “typical” OBGYN practice  
(Source: Discussions with several practicing OBGYNs in Arkansas)  
Calculation: 200 deliveries times 241 OBGYNs = 48,200  
Number of live births and fetal deaths in Arkansas = 37,500

With additional Family Physician Obstetricians, it appears that the private sector has adequate capacity to serve all pregnant women if all had insurance coverage.

Pediatricians:

2000 Children seen in a pediatrician’s practice per year  
( Source: Dr. Eldon Schulz, UAMS Developmental Pediatrician)  
Calculation: 2000 children times 381 pediatricians = 762,000  
Number of children 0-18 in Arkansas (US Census) = 716,000

Family Physicians:

150 patients seen per week in a typical Family Practice  
(Source: Dr. Steve Strode, Area Health Education Centers, UAMS)  
Of which 14% are children  
(Source: National Family Practice data from Dr. Strode)

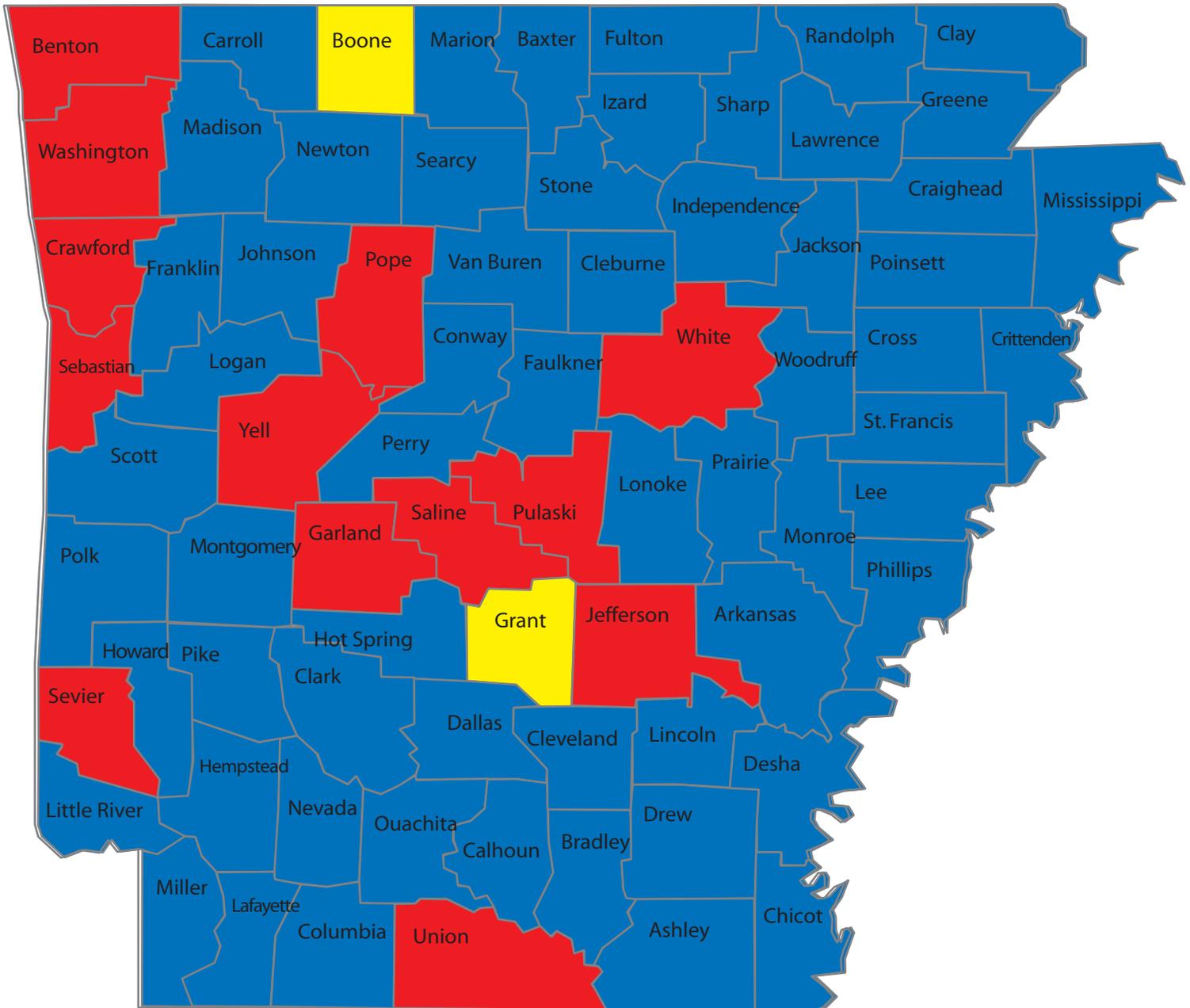
Calculation: 150 patients per week  
times 50 weeks per year  
times 14% who are children  
times 1125 Family Physicians  
  
 $150 \times 50 \times .14 \times 1125 = 1,181,250$

So, adding the estimated capacities of pediatricians and family physicians, there is ample capacity to serve children, even if some Family Physicians choose to see only adults.

By extension there should be enough pediatricians and family physicians to see Children with Special Health Care Needs, but developing all practices around the guidelines of the Medical Home is going to take training and time.

# Arkansas

## MEDICALLY UNDERSERVED AREAS (MUA)



- Entire County Designation
- Partial County Designation
- No Designation

ARKANSAS DEPARTMENT OF HEALTH  
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7-01-05

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